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NEAREST THE POLE

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Nearest the Pole

A Narrative of the Polar Expedition of the Peary Arctic Club in the S. S. Roosevelt, 1905-1906

By

R. E. PEARY, U. S. N

With ninety-eight illustrations by the author and two maps

LONDON
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INTO FOREIGN LANGUAGES, INCLUDING THE SCANDINAVIAN

TO HER WHO HAS BEEN
MY CONSTANT AID AND INSPIRATION
AND HAS BORNE THE BRUNT
OF IT ALL

INTRODUCTION

The Address of President Roosevelt on his presentation of the Hubbard Medal of the National Geographic Society to Commander Robert E. Peary, at the annual banquet of the Society, December 15, 1906.

I count myself fortunate in having been asked to be present this evening at such a gathering and on behalf of such a society to pay a tribute of honour to an American who emphatically deserves well of the commonwealth. Civilised people usually live under conditions of life so easy that there is a certain tendency to atrophy of the hardier virtues. And it is a relief to pay signal honour to a man who by his achievements makes it evident that in some of the race, at least, there has been no loss of hardy virtue.

I said some loss of the hardier virtues. We will do well to recollect that the very word virtue, in itself, originally signifies courage and hardihood. When the Roman spoke of virtue he meant that sum of qualities that we characterise as manliness.

I emphatically believe in peace and all the kindred virtues. But I think that they are only worth having if they come as a consequence of possessing the combined virtue of courage and hardihood. So I feel that in an age which naturally and properly excels, as it should excel, in the milder and softer qualities, there is need that we should not forget that in the last analysis the safe basis of a successful national character must rest upon the great fighting virtues, and those great fighting virtues can be shown quite as well in peace as in war.

They can be shown in the work of the philanthropist; in the work of the scientist; and, most emphatically of all, in the work of the explorer, who faces and overcomes perils and hardships which the average soldier never in his life knows. In war, after all, it is only the man at the very head who is ever lonely. All the others, from the subordinate generals down through the privates, are cheered and sustained by the sense of companionship and by the sense of divided responsibility.

You, the man whom we join to honour to-night, you, who for month in and month out, year in and year out, had to face perils and overcome the greatest risks and difficulties with resting on your shoulders the undivided responsibility which meant life or death to you and your followers—you had to show in addition what the modern commander with his great responsibility does not have to show. You had to show all the moral qualities in war, together with other qualities. You did a great deed, a deed that counted for all mankind, a deed which reflected credit upon you and upon your country; and on behalf of those present, and speaking also for the millions of your countrymen, I take pleasure in handing you this

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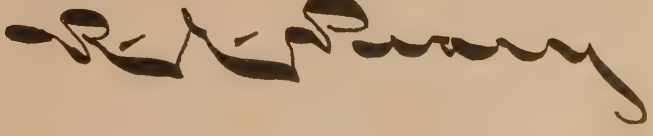
COMMANDER ROBERT E. PEARY



MORRIS K. JESUP

Hubbard medal, and in welcoming you home from the great feat which you have performed, Commander Peary.

Peary's reply to President Roosevelt on the presentation of the Hubbard Medal of the National Geographic Society, December 15, 1906.

President Roosevelt: In behalf of the Peary Arctic Club and its president, Morris K. Jesup, I beg to express our deep appreciation of the great honour conferred by the National Geographic Society in this award of its gold medal, and the double honour of receiving this medal from your hand.

Your continued interest, Mr. President, your permission to name the club's ship after you, and your name itself have proved a powerful talisman. Could I have foreseen this occasion, it would have lightened many dark hours, but I will frankly say that it would not, for it could not, have increased my efforts.

The true explorer does his work not for any hopes of reward or honour, but because the thing he has set himself to do is a part of his being, and must be accomplished for the sake of the accomplishment. And he counts lightly hardships, risks, obstacles, if only they do not bar him from his goal.

To me the final and complete solution of the Polar mystery which has engaged the best thought and interest of some of the best men of the most vigorous and enlightened nations of the world for more than three centuries, and to-day quickens the pulse of every man or woman whose veins hold red blood, is the thing which should be done for the honour and credit of this country, the thing which it is intended that I should do, and the thing that I must do.

INTRODUCTION

The result of the last expedition of the Peary Arctic Club has been to simplify the attainment of the Pole fifty per cent., to accentuate the fact that man and the Eskimo dog are the only two mechanisms capable of meeting all the varying contingencies of Arctic work, and that the American route to the Pole and the methods and equipment which have been brought to a high state of perfection, during the past fifteen years, still remain the most practicable means of attaining that object.

Had the past winter been a normal season in the Arctic region and not, as it was, a particularly open one throughout the Northern hemisphere, I should have won the prize. And even if I had known before leaving the land what actual conditions were to the northward, as I know now, I could have so modified my route and my disposition of sledges that I could have reached the Pole in spite of the open season.

Another expedition following in my steps and profiting by my experience cannot only attain the Pole; but can secure the remaining principal desiderata in the Arctic regions, namely, a line of deep sea soundings through the central Polar Ocean, and the delineation of the unknown gap in the northeast coast line of Greenland from Cape Morris Jesup to Cape Bismarck. And this work can be done in a single season.

As regards the belief expressed by some that the attainment of the North Pole possesses no value or interest, let me say that should an American first of all men place the Stars and Stripes at that coveted spot, there is not an American citizen at home or abroad, and there are millions of us, but what would feel a little better and a

little prouder of being an American; and just that added increment of pride and patriotism to millions, would of itself alone be worth ten times the cost of attaining the Pole.

President Roosevelt, for nearly four centuries the world dreamed of the union of the Atlantic and Pacific. You have planted the Stars and Stripes at Panama and insured the realisation of that dream.

For over three centuries the world has dreamed of solving the mystery of the North. To-night the Stars and Stripes stand nearest to that mystery, pointing and beckoning. And, God willing, I hope that your administration may yet see those Stars and Stripes planted at the Pole itself. For, between those two great cosmic boundaries, the Panama Canal and the North Pole, lie the heritage and the stupendous future of that giant whose destinies you guide to-day, the United States of America.

ANNOUNCEMENT

NEW YORK, MARCH 30, 1907

The Peary Arctic Club at a recent meeting resolved unanimously to place the *Roosevelt* on dry dock for a refitting, and to subsequently tender the same to Commander Peary for a final attempt to be made by him to reach the North Pole. Believing Commander Peary will be successful, the Club has taken this action, and they have every confidence in the gallant and intrepid American, and share in the pride that must animate the American people to see planted at the North Pole the American flag.

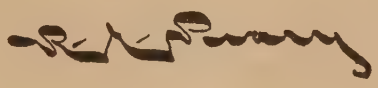
The Peary Arctic Club asks the aid of those who have heretofore contributed, as well as the co-operation and aid of all or any who are interested in this patriotic enterprise. The expense of this final expedition it is estimated will be one hundred thousand dollars. [Twenty thousand pounds.]

MORRIS K. JESUP, *President.*

NEW YORK, MARCH 30, 1907

The fact, as indicated in Mr. Jesup's letter, that the Peary Arctic Club hopes to send out another Polar Expedition the coming summer, will, I trust, be accepted as an excuse for any shortcomings in this volume.

The writer has, from the day of his return, been under the stress of insistent and incessant demands, and in working and planning for the next campaign, has found it difficult and at times impossible to put this narrative of the compaign just finished, in the shape that would do full justice to himself and his publishers.



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NEW YORK TO ETAH

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NEAREST THE POLE

CHAPTER I

FROM NEW YORK TO ETAH

WHEN an expedition starts for distant and mysterious regions for an uncertain length of time, and particularly when its objective point is the frozen heart of the Arctic Circle, it is natural that those who know and are interested in its objects and plans should turn with interest to its personnel and its surroundings and environment while en route to the scene of action.

The opening scenes of an Arctic voyage are comparatively familiar to those conversant with Arctic literature. The main features of the play are much the same: A crowded and littered ship, regrets at leaving, confusion, and, if the weather be decent, an effort to get into shape, or, if the weather be bad, a surrender by most of the party to abject misery in cramped quarters. In the present instance, some of these features were entirely absent, and others appeared only in a mild form.

Experience and a roomy ship almost completely obviated the lumbering of the decks, beyond the inevitable and inseparable feature of the coal, a portion of which must at first always be carried on deck.

Such few things as were dumped on deck at the last

moment, were quickly and readily disposed of; and quarters specially arranged for the party and on deck, insured fair room for each member of the expedition.

As to regrets, no pronounced symptoms were noticeable in the others, and I had made the voyage too often to consider it more than a trip to Europe.

Under these favourable circumstances let us look at the personnel of the party whose home for an uncertain length of time, in the ice of the Polar Sea, was to be the good ship *Roosevelt*. First the captain, Robert A. Bartlett, sailing master and ice navigator, who was 30 years of age, 5 feet 10½ inches tall, and weighed 174 pounds. Bartlett is one of the new generation of Bartletts, a hardy family of Newfoundland sailors and navigators, almost all of whom have been associated with Arctic work. A great uncle was master of the *Tigress* when that ship picked up the drifting floe party of the *Polaris* expedition; two uncles, Samuel and John, were respectively master and mate of the *Panther* in which Hayes and Bradford visited Melville Bay; recently Captain Sam was master of the Canadian Government steamer *Neptune*, which wintered in Hudson Bay; and both of these, as well as Harry, a younger uncle, had been masters of my ships during one or the other of my several voyages north. Robert was mate in the *Windward* in the expedition of '98 to '99.

Blonde, smooth-shaven and close-cropped, stockily built and clear-eyed, he had already been farther north in these regions than any of the other Newfoundland ice masters, and his youth, ambition, and the Bartlett blood all counted in his favour.

Moses Bartlett, mate, a second cousin of the captain, was 47 years old, 6 feet high, and weighed 184 pounds. He had already been as far north as Cape Sabine three times; twice as mate of my ships and once as mate of the *Neptune*, and had also spent a year on this ship in Hudson Bay in the employ of the Canadian Government. Weather-beaten, grizzled, and keen of eye, he was regarded as one of the best of the Newfoundland ice pilots.

George A. Wardwell, chief engineer, was a native of Bucksport, Maine, 44 years of age, 5 feet 11 inches tall, and weighed 240 pounds. Acting as engineer in the shipyard in which the *Roosevelt* was built and intimately employed in her construction, he was deeply interested in her proposed work and anxious to join the expedition. His phlegmatic temperament, and evident capacity for work, combined with non-use of liquor and tobacco, were all strong points in his favour.

John Murphy, boatswain, was a native Newfoundlander, 31 years of age, 5 feet 11 inches tall, and weighed 165 pounds. Sailor and fisherman from the age of eighteen, he had also been as far north as Cape Sabine on the *Neptune* and had wintered with her in Hudson Bay.

Murtaugh J. Malone, assistant engineer, was a native of Portland, Maine, 49 years of age, 5 feet 7½ inches tall, and weighed 150 pounds.

Dr. Louie J. Wolf, surgeon of the Expedition, was a native of Oregon, 30 years of age, 5 feet 9 inches tall, weighed 150 pounds, was a graduate of the Cooper Medical College, San Francisco, California,

becoming later House Surgeon at St. Vincent's Hospital, Portland, Oregon, and still later Assistant Attending Physician at the Cornell University Medical College, and of the outdoor medical dispensary of Bellevue Hospital.

Ross G. Marvin, secretary and assistant, was a native of Elmira, N. Y., a graduate of Cornell University, 25 years of age, 6 feet tall, and weighed 160 pounds. Subsequently he had three years of naval training on board the school ship *St. Mary's*.

Charles Percy, my steward, was a native of Newfoundland, 54 years of age, 5 feet 10 inches high, and weighed 180 pounds. He had previously made a summer voyage as far north as Cape Sabine in my ship the *Diana* in 1899, and later had spent two years with Mrs. Peary and myself at Cape Sabine, from 1900 to 1902. Subsequently he had been in my employ as resident in charge of Eagle Island.

Matthew Henson, my personal attendant, was a coloured native of the District of Columbia, 39 years of age, 5 feet 6¾ inches high, and weighed 145 pounds. In my employ in one capacity or another most of the time since I took him to Nicaragua with me in 1888, and a member of all of my Arctic expeditions, his quality and capabilities were fully known.

The crew and firemen, with the exception of one of the latter, Charles Clark, a native of Massachusetts, were natives of Newfoundland, of the usual type of sailors and sealers common to that island. One of the firemen had been with me on the *Eagle* in 1886, and previously to that had been on one of the whalers in search of the Greely party in 1883. Another fireman had been north with me in the *Hope*

DR. WOLF

STEWARD PERCY

COMMANDER PEARY

CAPT. BARTLETT

MR. MARVIN

MATE BARTLETT

CHIEF ENGINEER WARDWELL

MATTHEW HENSON

"BO'SUN" MURPHY

THE SAILORS

THE FIREMEN

in 1898, and one of the sailors had made a voyage to Hudson Bay.

Next after the personnel of the Expedition comes their environment. In the present case no member of the party was quartered below deck. The after cabin for officers, close down against the propeller post, and the forecastle for the crew, down in the eyes of the ship forward, to be found in all the old-fashioned ships, and even in those recently built for Arctic work, were lacking on the *Roosevelt*, and in their stead were light, roomy accommodations on deck.

As to the furnishings of the rooms there was little to be said. Beginning forward, it is well known that Jack, particularly if a Newfoundland sealer, does not take much bric-a-brac to sea with him, his outfit comprising only his clothes and his bedding. There were therefore no oil paintings or etchings on the walls of the forward house. Two tiers of folding bunks, a stove, a table, and the seamen's chests for chairs, completed the list.

The furnishings of the after house were hardly less simple.

In the port saloon, which was lighted by two twelve-inch ports on the side, and a window looking forward, a leather-cushioned locker extended around three sides of the room; and this, with an extension table screwed to the floor, a clock, a little library presented to the ship by the SEAMAN'S FRIEND SOCIETY, and a brief notice to the members of the Expedition, stating the object of the Expedition, what was expected of the members and what success would mean to them, completed the furniture. Here the ship's officers, except the captain, messed.

In the captain's room, at the after end of the port side of the deck house, was a folding berth, a wash-basin, a table and a camp chair, and these, with the chronometer, a trunk, and several pictures and photos on the walls, completed its furnishing.

At the after end of the starboard side of the deck house was my own room. This room, owing to the thoughtful care of Mrs. Peary and friends, was more luxuriously furnished than any room occupied by me on previous expeditions or than it would have been had I furnished it myself.

The room (10 x 16) was also larger than I had ever had on a previous expedition. The room occupied by Mrs. Peary and myself at Redcliffe was 7 x 12 feet, and the one at Anniversary Lodge 8 x 18 feet. But one of the most annoying circumstances of the long Arctic winter is always the crowding of cramped quarters, the inability to move without knocking against something, the feeling of oppression. This, on top of the contracted horizon and feeling of compression from the protracted darkness, is at times almost intolerable, and in planning the *Roosevelt* quarters I felt that I was justified in giving myself a little more room. Two ports and a window looking aft lighted the room and, as in the captain's room, a door opened aft on to the quarter-deck, while another gave me direct access to the engine room.

A berth, a table, and a chair, are of course essentials and were present. Then came the *pièce de résistance*, the beautiful pianola given me by my friend H. H. Benedict. This, with a rack of nearly 150 music rolls, popular operas, marches, waltzes and rag-time,

was screwed to the deck at the forward end of the room. Over it was a large framed portrait of the founder of the Expedition, Morris K. Jesup, flanked on either side by an etching of President Roosevelt and a photo of Judge Darling, Assistant Secretary of the Navy. In the forward corner was a stationary wash-stand, and on the inboard wall a series of shelves containing a small Arctic library, a few books of reference, and a few standard works of fiction. A chest of drawers, a cellarette, a table, a wicker easy chair from Mr. Jesup, a warm brown rug from Mrs. Peary, pictures of the home folks and home places, and Arctic maps upon the walls completed the fittings, not including a trunk and two chests of stores in the doctor's department, for which there was at present no room below decks.

Wednesday, July 26th, '05.—All things come to an end at last, even the starting of this Expedition.

The *Roosevelt* got away from the Terminal Pier at North Sydney at 2 P. M.* With the exception of the quarter-deck, which is loaded with bags of coal, to keep the ship from trimming too deep by the head, the deck is not nearly so badly littered and cumbered as on previous voyages.

The cases of oil and a few miscellaneous casks are practically all that is not below hatches. We have on board something over 500 tons of coal, besides our supplies and equipment. In capacity, the *Roosevelt* comes fully up to my expectations. There is a quarter

*NOTE.—The *Roosevelt* sailed from New York on July 16th, touched in at Bar Harbour to receive Mr. Jesup's "God-speed," then loaded with coal at Sydney, C. B.

of beef in the rigging, two or three sheep among the coal bags aft, and a tank and several casks of water on deck, besides the full tanks below.

Once under way, I hope to make no stops this side of Cape York. It is already late in the season and every day now is precious.

Percy, the steward, has purchased two small porkers, "Dennis" and "Mike," which are running contentedly about the deck, and if they escape the dogs, which is very doubtful, they may furnish us roast pork for our Christmas dinner.

Outside the harbour a little swell caused by the easterly breeze taking the ship broadside on, sets her rolling a bit until she straightens out on her course to pass St. Paul's light.

The next thing in order was the stowing of the miscellaneous packages which during the past days have been put in the various rooms, particularly my room, to prevent their getting mixed up with the provisions in the hold. This was readily accomplished by supper time, at least to the extent of permitting a passage through the room and allowing access to the bunk, the table, and a camp chair.

Immediately after supper we ran into dense fog and are now ploughing our way through it across Cabot Strait, the southern gateway of the Gulf, blowing our whistle as if we were in Long Island Sound, for we are crossing the track of the inward- and outward-bound traffic.

Thursday, July 27th.—Heavy thunderstorms last night with electrical accompaniments as vivid as those of Gulf storms on the southern voyages.

PIANOLA PRESENTED BY H. H. BENEDICT

BOOKCASE AND WRITING TABLE

INTERIOR OF PEARY'S CABIN ABOARD THE "ROOSEVELT"

A MELVILLE BAY ICEBERG

TYPICAL WHALE SOUND GLACIER

Passed Cape Anguille on the Newfoundland coast at breakfast time, and Red Island and the bold cliffs of Cape St. George after noon.

Soon after dinner an alarm of fire was caused by the catching of one of the main deck-beams over the uptake from the boilers. A stream from one of the fire hose which was coupled on in readiness and needed but the opening of a valve to turn the water on, quickly extinguished the fire, which was apparently caused by the more gaseous nature of the Sydney coal, and the combustion and heat in the stack instead of in the boiler. It was then discovered that several sections of the water-tube boilers were leaking, and the fires were immediately drawn to let the boilers cool for examination; the *Roosevelt* steaming along under the Scotch boiler only.

The process of stowage both about the decks and in the rooms has continued to-day, and most of the oil has been put down in the forepeak. A fine day, though with occasional showers, and the *Roosevelt* as steady as if steaming up the North River.

Friday, July 28th.—Continuance of the fine weather, running under Scotch boiler only all night and day. The engineers working on the Almys. The Chief to-night fears the damage is more serious than at first anticipated. At intervals during the day I have been comparing the readings of the log with the revolutions of the engines at varying speeds; with results fully up to my expectation. Another incipient fire in the same place was immediately extinguished, and I have had portions of the beams cut away and other means

taken to prevent a recurrence. At supper time we passed four or five small bergs which had come through the straits. Fine weather, with smooth sea till evening, when the fog shut down on us. Just before this, two large steamers passed us heading for the straits, and one hung out the signal, "Wish you a pleasant voyage," to which we replied, "Good-bye." It is light now till 9 P. M., and it seems good to be again approaching the Arctic day.

Saturday, July 29th.—A dirty night. In the dense fog, which filled the Belle Isle graveyard of ships, Point Amour Light was invisible, until apparently hanging over our mast head, and then it was a matter of feeling our way from fog horn to fog horn through the Straits. We could hear two or three large steamers that were laying to, blowing their double blasts; and numbers of bergs added to the uncertainty and anxiety of the passage.

Captain Bartlett and myself up all night. At breakfast time just north of Chateau Bay we ran out of the wall of fog into bright sunshine, and a field of beautiful icebergs. Cape York is 1500 miles from here.

Running northward all day, just off the Labrador coast, in alternate fog and sunshine. Have written two or three brief personal letters which we shall leave at Domino Run to-night, before heading across Davis Strait for Greenland. This is necessitated by the fog having shut us out of Chateau Bay and Battle Harbour, from which place our passing may have been reported to the home folks.

Sunday, July 30th.—Ran into Domino Run late last night without dropping anchor, and Captain Bartlett pulled ashore with the letters, coming off again at once. He learned that the ice was against the coast as far down as Cape Harrigan.

Going into the Run it was clear as a bell, and while lying to, waiting for the Captain's return, the stars twinkled as in winter, a biting wind whistled through the rigging, and a brilliant curtain aurora waved across the northern sky, while ashore the dogs were howling merrily.

Pacing the bridge, these familiar sights and sounds stirred me with the call of the polar mystery. Might it not be possible that this breath, this presence, as it were, of the land of the "Great Night" was reaching down far beyond its usual haunts to greet and welcome my coming?

When we steamed out, less than an hour after our arrival, the fog had settled down again, and the temporary jamming of the rudder chains while negotiating the narrow channel, caused a slight flurry, but resulted in nothing serious.

Clear of the harbour, our course was set N. E. by E. to bring us to the Greenland coast, well up Davis' Strait. Dense fog all night and to-day, with very smooth sea. Several narrow shaves from icebergs during the night, but this morning we were in deep water, and clear of them.

A light breeze from the southeast, just enough to fill our headsails, foresail, spanker and balloon staysails, but with no push to it. There will be no more sailing lights for us, side or masthead or stern. We are

beyond the world's highways now, and shall see no sail or smoke except our own, until we return.

Monday, July 31st.—To-day the fog has cleared away a bit. The sea still very smooth, not even a swell. A very perceptible twilight throughout the night. To-night there will be no night. We are in the border-land of the region of the "Great Day."

Tuesday, August 1st.—Continuance of fine weather and listless sea. At noon we are in the latitude of Cape Farewell and Cape Chidley, and about midway between them. A Brunnich's guillemot passed us flying south, and at 6 P. M. a small berg was visible a little west of our course.

At supper time Chief Wardwell, who has been working over the Almy boilers for the past four days, hands me a report that makes matters look gloomy. I am seriously disturbed and perplexed. Have ordered a complete overhauling and pressure test of the boilers.

Wednesday, Aug. 2d.—Another day of listless sea, and opening and clearing fog, with slowly rising barometer. Two bergs passed during the forenoon.

Am feeling physically something like myself again. I did not realise until we were actually off, and the relaxation came, how nearly fagged out I was with the incessant work, and the last two weeks of intolerable heat in New York. Were it not for our boilers I should feel very content.

In the afternoon a "bo'sun" bird, and numbers

of kittiwakes were flying about the ship, and several guillemots in the water dove to let us pass.

Thursday, Aug. 3d.—A foggy night and cold. This morning the sun shining through a low-lying fog, and a light, but particularly penetrating easterly breeze, the breath of the East Greenland ice inshore of us.

The noon sights showed us a little south of Sukkertoppen, and at 2 P. M. an opening in the fog showed us the Sukkertoppen Islands on the starboard bow. We are past the East Coast ice without seeing a cake of it. Since supper dense fog.

Friday, Aug. 4th.—Thick fog all night until about 6:30 A. M., when it began to lift, showing us the bold Greenland Mountains, near Holsteinburg. Not a piece of ice inshore or a berg in sight.

We crossed the Arctic Circle at two o'clock this morning, and Percy, the steward, asserts that the bump when the ship went over it, woke him up!!

In regard to smoothness of sea, peacefulness of weather, entire absence of ice, and scarcity of bergs, the voyage from Sydney to the Arctic Circle has been most unusual even for this season of the year. With the exception of the few rolls just outside of Sydney Harbour, there has not been enough motion of the ship to spill a glass of water.

The noon sights give us 67° 37′ north latitude. The water, like glass, and the cliffs of Disco visible 95 miles away. In 68° we passed through a fleet of twenty-seven bergs, the output of the Disco Bay glaciers. During the afternoon a few

walrus and two whales were seen. The day has been one of typical Disco Bay summer weather.

Saturday, Aug. 5th.—A perfect Arctic summer night, clear and brilliant. At two this morning we passed Godhavn, the little place lying under the southward-facing cliffs of Disco, which is the capital of the northern inspectorate of Greenland. Here, nineteen years ago, I got my first taste of Arctic life, and made plans and indulged in dreams some of which have since materialised and others may. Several times since then I have anchored in the harbour, till I know the little settlement as I do the streets of Washington.

Though we are now over three degrees beyond the Arctic Circle, I am sitting in my cabin, with window and ports open, in my shirt sleeves, wearing clothing I wore in New York before I left, writing in entire comfort.

Later, a light breeze from the westward, keen after its passage over the middle pack, makes the blue waters look like frosted steel, and sharpens the western cliffs of Disco, along which we are steaming, into almost startling clearness.

At noon we are off Hare Island and passing through a fleet of large bergs, the output of the Tossuketek glacier, which I visited in 1886, through the Waigatt. We are ten days from Sydney to the Waigatt.

Sunday, Aug. 6th.—An hour or two of fog at midnight, then overcast, with a light following breeze, barely enough to fill the sails at first, then freshens from southwest and brings up a sea which would give

the *Roosevelt* considerable motion were it not for the sails which hold her almost as steady as a rock.

Occasionally the top of a wave slaps over the port rail, but not enough to do any harm.

The base of Sanderson's Hope seen and named by John Davis 300 years ago, was visible under the fog in the early morning. Our noon sights gave us 73° 17′ north latitude, and at 6 P. M. we passed the Duck Islands on our starboard beam, near enough to see with the glasses, the old whaler's lookout on the summit.

The sea and fresh breeze continued all the evening, and there is evidently very dirty weather to the south of us. No sign of ice yet.

Monday, Aug. 7th.—We ran away from the wind during the night. Cape York was visible at 2 P. M. and at 7 P. M. we ran past the point of it for the Eskimo settlement beyond. The run across Melville Bay had been made in twenty-five hours. No ice or ice sky was seen, and there is evidently no ice in the bay this year.

Going ashore, I found four tents at the village, and learned that some fifteen families are located to the eastward, at Meteorite Island, and other places. Among them are some of my best men.

Told the natives to get their things ready to come on board on my return, and going off to the ship steamed eastward.

Stopped off the first settlement and, without dropping anchor, shouted to the men to get ready to move.

Then on to Meteorite Island, where I found four

tents and learned that four other families were still farther east in the bay. These I shall not see, as I cannot take the time to go so far out of my way. At Meteorite Island are three of my old men, and, in an hour or two, they are all on board with their belongings, and we steam away, leaving the place deserted. Back to the next settlement and the operation is repeated. Six families move all their belongings on board and desert their village in about three hours.

Tuesday, Aug. 8th.—It was after breakfast when we finished at the last settlement, and I lay down for a short nap while crossing Cape York Bay, having been up all night.

Again at Cape York the tents were quickly struck and, with all their belongings, the new men came on board.

At 2 P. M. we steamed around the Cape, and headed north to join the *Erik* at North Star Bay.* While passing Petowik Glacier a steamer was seen to the westward steaming south. The glasses showed her to be small and schooner-rigged.

Wednesday, Aug. 9th.—On arriving at North Star Bay this morning at 2 A. M., learned from the *Erik* that the steamer we saw was the Danish steamship *Fox*, here for the purpose of selecting a site for a settlement. The *Erik* came alongside and I transferred to her with Marvin and "Matt," to make a round

*NOTE.—The *Erik* was the auxiliary, steam whaler chartered by the Peary Arctic Club to go north as a collier, replenish the *Roosevelt's* coal supply at Etah and deposit there a depot of coal for the *Roosevelt* on her return voyage.

OOMUNUI

The peculiar peak at the entrance of the North Star Bay, Wolstenholm Sound

COALING AT ETAH

TRANSFERRING WALRUS MEAT AT ETAH

of the settlements to the north, and to hunt walrus, while the *Roosevelt* goes direct to Etah to overhaul machinery and prepare for the ice.

The *Erik* got underway soon after, and made the circuit of Wolstenholm Sound, looking for walrus, but without success. There is no ice for them to bask upon.

At the Saunders Island bird cliffs we then put in two or three hours shooting, securing 130 birds, and returned to North Star Bay. Here, the natives that I wanted were taken on board, and some thirty additional dogs purchased. Before midnight we steamed north for Whale Sound.

The next morning we were rounding magnificent Cape Parry, into Whale Sound, and steamed eastward along the southern shore to Ittibloo, where I expected to find more of my people. None were there, however, and the *Erik* turned northward across the Sound to Karnah, where I felt certain to find someone. Six tents were located here beside the brawling summer river, and the men were all away at Cape Cleveland, hunting walrus with one of the whaleboats which I had given them three years before. From the women, I learned that about ten families were up the gulf at Kangerdlooksoah and that vicinity. Telling the natives here, as at the other places, to get their things in readiness to come on board when the ship returned, we steamed eastward into Inglefield Gulf. No ice was to be seen here, but there was a most unusual profusion of bergs from the great Heilprin and Melville Glaciers at the head of the Gulf. At times it looked as if there were no thoroughfare among the

bergs, but a closer approach in every case showed winding passages among them, and off Kangerdlooksoah there were comparatively few.

Here, where I had left my faithful people three years before, I found now six tents, the occupants of all but one of them young and active men. The number of dogs, and the goodly supply of skins which these people have, made the process of moving a little slower than at some of the other places, but everybody and everything was finally on board, leaving the place, which a few hours before had been enlivened by the voices of children and the barking of dogs, deserted. From Kangerdlooksoah we steamed north across the head of the Gulf to Harvard Islands, on the northernmost of which were four tents. These, like the others, were embarked as soon as possible, and at half-past two the morning of the 11th, the *Erik* was ready to steam down the Gulf again.

The scene and the surroundings during this typical Arctic summer night were such as to be long remembered. The surface of the Gulf like a placid mirror, thickly dotted in every direction with fragments of ice and icebergs, of all sizes and shapes, and flanked on the east and north by the gigantic amphitheatre of the Heilprin, Tracy, and Melville Glaciers rising to the steel-blue slopes of the "great ice," while northwest and west rose the warm red-brown bluffs of Mounts Daly and Adams, and Josephine Peary Island, and to the south the rolling slopes of the Kangerdlooksoah deer pastures. During the remainder of the night we steamed down the Gulf, and in the forenoon we were on the walrus grounds between Herbert Island and the north shore of the Sound.

Up to this time, the weather, since arriving at Cape York, has been an uninterrupted sequence of calm and continuous sunlight — typical Arctic summer weather. Now, however, wind and fog have their turn, and render it impossible to secure walrus, wasting the day for us.

In the evening we steamed back to Karnah, to take on board the natives there, and be in readiness to attempt the walrus again the following day. By midnight this work was completed, and as everyone was now dead-tired and sleepy, the *Erik* steamed out into the middle of the Sound to drift until after breakfast of the following day, when we again steamed out to the walrus grounds and by nine o'clock that night had secured eighteen of the animals. Fog and rain were now coming in upon us, and we steamed into the last settlement on our list, Igludiahni, where six tupiks were found. Our stay here was short as I wanted but one family here, and it did not take me long to purchase a number of additional dogs. When the last dog was on board the *Erik*, she headed for Cape Chalon on her way to rejoin the *Roosevelt* at Etah, where she arrived at breakfast time Sunday, the 13th. The *Roosevelt* had landed her coal in bags and broken out the supplies for the purpose of restowing to give her the proper trim to enter the ice.

It being Sunday, everyone enjoyed a much needed rest, except the Eskimos, to whom the work of skinning and cutting up the walrus was a labour of love and pleasure.

Early Monday morning the *Erik* veered alongside the *Roosevelt* and, at five o'clock, the work of

transferring the meat, of restowing the *Roosevelt's* supplies, and of filling her bunkers and 'tween-deck space with coal from the *Erik*, was commenced. This continued during Monday, Tuesday, and till Wednesday at 2 A. M. when the *Roosevelt* was ready to steam out and begin the struggle for which she was built, the fight with the Arctic ice from Cape Sabine to the northern shore of Grant Land. Thus far the voyage had been child's play: what was now before her was likely to be the reverse.

The *Roosevelt* now had on board of her a crew of twenty, some forty Eskimos, and about 200 dogs. She also carried, in addition to the supplies and equipment for the party, about four hundred and fifty tons of coal and several tons of walrus meat.

I had been agreeably surprised to find the natives in unusually prosperous condition, with a superfluity of dogs, abundance of meat, and a good supply of skins for clothing. Several of my old friends and acquaintances had died during the last three years, but there were also a number of new babies and, although I did not have time for anything in the nature of a census, I had no doubt that the births equalled and probably exceeded the number of deaths.

ETAH TO CAPE SHERIDAN

CHAPTER II

ETAH TO CAPE SHERIDAN

LEAVING Etah soon after midnight of August 16th, the *Roosevelt* swung out from the harbour of Etah and severed all communication with the civilised world. Below decks the ship was filled with coal until her plank sheer was nearly to the water; on deck were more than two hundred Eskimo dogs; and on the top-gallant forecastle, and the tops of both forward and after deck houses were over half a hundred Eskimos, men, women and children, and their belongings.

The heavy pack ice surging down Smith Sound, past Littleton Island, gave me an opportunity to see what good work the ship could do and as we bored through it toward Cape Sabine, she realised my expectations in regard to her, even though very deeply loaded and her boiler power reduced to one-half. The sharply raking stem was a revelation even to me, though it was my idea. Deep and heavy as the ship was, she rose on the opposing ice without pronounced shock, no matter how viciously she was driven at it, and either split it with the impact, or wedged it aside by sheer weight.

Bartlett obeyed my first orders, to give her full speed and I would be responsible, with some misgivings. The sealing captains are always very cautious with their ships when first going out heavy with coal.

At the end of an hour or two he was enthusiastic, both at the ease with which the most crushing blows could be delivered, and the whaleboat-like facility with which the ship wheeled and twisted through the tortuous passages.

But there were some areas of ancient ice which a thousand *Roosevelts* merged in one could not have negotiated, and we were soon deflected to the southwest, and only when within some ten miles of Cape Isabella did we find it practicable to work northward again.

Cape Sabine and Payer Harbour, which had been my headquarters for sixteen months in 1901–1902, were densely packed, permitting no near approach, and we bored away to the northeast, till the ice became impracticable for further advance, then retraced our route, and worked towards Bache Peninsula, getting about half-way across Buchanan Bay when we were stopped by large floes barring our passage to open water under Cape Albert. The ice later appearing more favourable to the eastward, we retraced a portion of our route and I very carefully reconnoitred Sabine and Payer Harbour again as I was loath to give up my sub-base there, this being part of my programme as outlined to the Club. But the conditions were entirely impossible, and making a detour to the east, the *Roosevelt* gained the open water at Bache Peninsula, and steaming to the bight south of Victoria Head, the northwestern headland of the peninsula, landed a depot of boats, coal, and provisions.

The value of this locality for the southern sub-base of an expedition going north by the Smith Sound or

"American" route was immediately apparent to me in 1898, and in any future work it should be given preference over Payer Harbour. Its advantages are contiguity to a valuable game region, accessibility during any month in the year, and its less changeable and boisterous climate.

The work of landing the depot occupied about ten hours of the 18th, and while the work was in progress I went away with three Eskimos to a neighbouring valley which I knew, and secured three musk-oxen, a large bull, a cow, and a yearling, the latter being brought aboard alive. This animal was of the greatest interest to the crew and the "tenderfoot" members of the expedition, and the arrival of nearly eight hundred pounds of fine fresh beef created a very agreeable impression on everyone.

Up to this time the rush of getting on board my Eskimos and dogs, re-stowing the ship and fighting the ice, had left me no time for a thought beyond the demands of each hour. Now as I trod the moss patches beside the murmuring stream whose quieter reaches were crusted with ice, saw the fresh tracks of big game and a little later the shaggy black bulks of the musk-oxen with heads lowered and hoofs stamping, in the way I knew so well, my pulses bounded rapidly and I felt that I had come into my own again.

From Bache Peninsula we steamed for Hayes Point through scattered ice, with the heavy pack close on the starboard hand. Conditions were different from those of 1898, when the *Windward* was five days crossing the mouth of Princess Marie Bay. The night was fine and I could make out every well-known rock

along the Cape D'Urville shore where the *Windward* wintered in '98–'99. Looking into the distant depths of Princess Marie Bay, numerous episodes with bear and seals and musk-oxen crowded upon me. We experienced some trouble with ice near Hayes Point and Cape Frasier, and finally dodged into Maury Bay and anchored at noon of the 19th, to escape the large fields of very heavy ice which were moving rapidly southward before a fresh northerly wind, crashing with savage fury against the iron bastion of Cape John Sparrow under which we lay.

Vigilantly watching the ice and taking advantage of every opportunity, we squeezed and hammered our way into Scoresby Bay, hugging the shore closely, and thence to Richardson Bay. Twice we nearly reached Cape Joseph Goode only to be forced back by the oncoming floes to a shelter under Cape Wilkes, close to my "Christmas" igloos of 1898, where on that unfortunate midwinter journey to Fort Conger, during which I froze both my feet, I had spent Christmas and opened a small box from loved ones at home.

Rawlings Bay was packed and the ice along the Grinnell Land shore apparently unbroken. On the Greenland side it appeared less dense. During this time the weather was fine.

The aspect of the ice was so extremely unfavourable, northward on the Grinnell Land side, that I determined to test my belief gained in my last four years of work in this region, that the Greenland side of Kennedy and Robeson Channels offered as a rule more favourable opportunities for navigation than the Grinnell Land side.

ENTERING THE SMITH SOUND ICE

OPEN WATER OFF CAPE LUPTON

THE SQUEEZE NEAR "THE GAP"

Firm in my confidence in the capabilities of the *Roosevelt* and against all the so-called canons of Arctic navigation in this regi n, she was headed eastward in the afternoon of the 21st and driven into the thick of the channel pack. The ice encountered was very large and heavy, and its southward drift inevitably swept us down; still we made fair progress eastward and after a severe and protracted struggle, during which Bartlett and the mate remained continuously in the fore rigging and I in the main rigging, we broke out into loose ice off Cape Calhoun and began boring northward towards Crozier and Franklin Islands. The channel between Franklin Island and Cape Constitution was attempted and found impracticable. The main channel pack was then negotiated close under the vertical western cliffs of Franklin Island. We then had fairly good going, interrupted by barriers of heavy but rather loose ice to Joe Island.

Stopped here by an impervious jam, the *Roosevelt* was made fast to the ice-foot which along the southern end of the island is of most stupendous character, and accompanied by Captain Bartlett I climbed to the summit of the island, from whence we saw the eastern portion of Hall Basin clear of ice to Cape Lupton and apparently to Cape Sumner. The western portion of the basin and as far as we could see north and south along the Grinnell Land coast was densely packed with heavy ice.

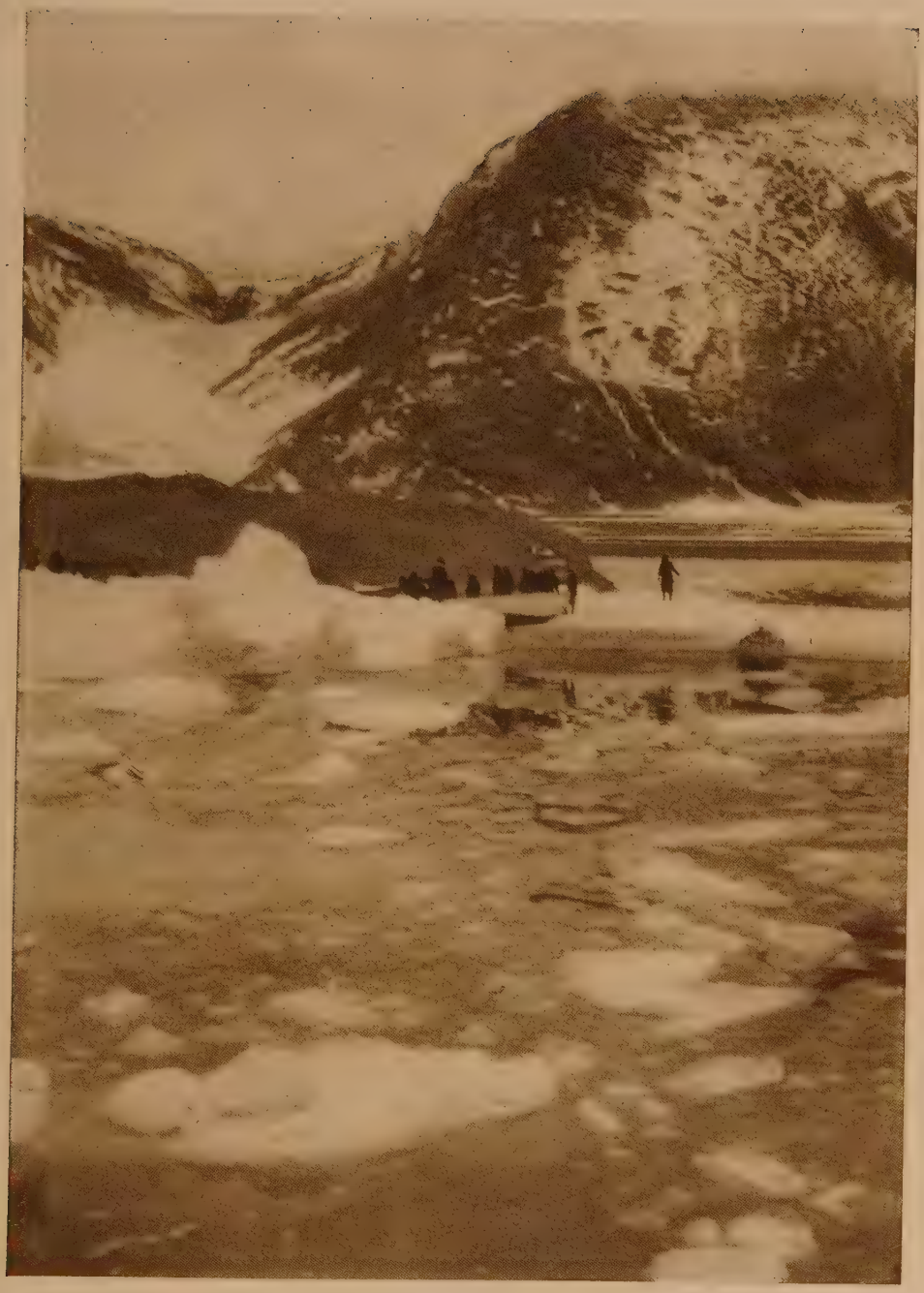
With the turn of the tide the tension in the channel pack along the western shore of the island relaxed somewhat, and hurrying back to the *Roosevelt*, a few hours of severe work forced the barrier, and in the teeth

of a strong and bitterly cold north wind which kicked up a very respectable sea and sent the spray flying over our bows, we steamed to Cape Lupton, reaching it at midnight of the 22d. While steaming through this open water we passed Thank God Harbour, the winter quarters of Hall's *Polaris* on our right and Discovery Harbour, the winter quarters of the *Discovery*, and site of Fort Conger, on our left.

A few miles north of Cape Lupton, while smashing through a narrow tongue of ice, a sudden swirl of the current which at times runs like a mill-race in this deep channel, swept the ice together in a way that I can only liken to the sudden scurry of fallen leaves before an autumn breeze, pinched the *Roosevelt* between the big cakes, and smashing her against the ice-foot, ground her along its vertical face with a motion and noise like that of a railway car which has left the rails and is bumping along over the ties. Very fortunately for us she scraped into a shallow niche in the ice wall, and was hastily secured with every available line.

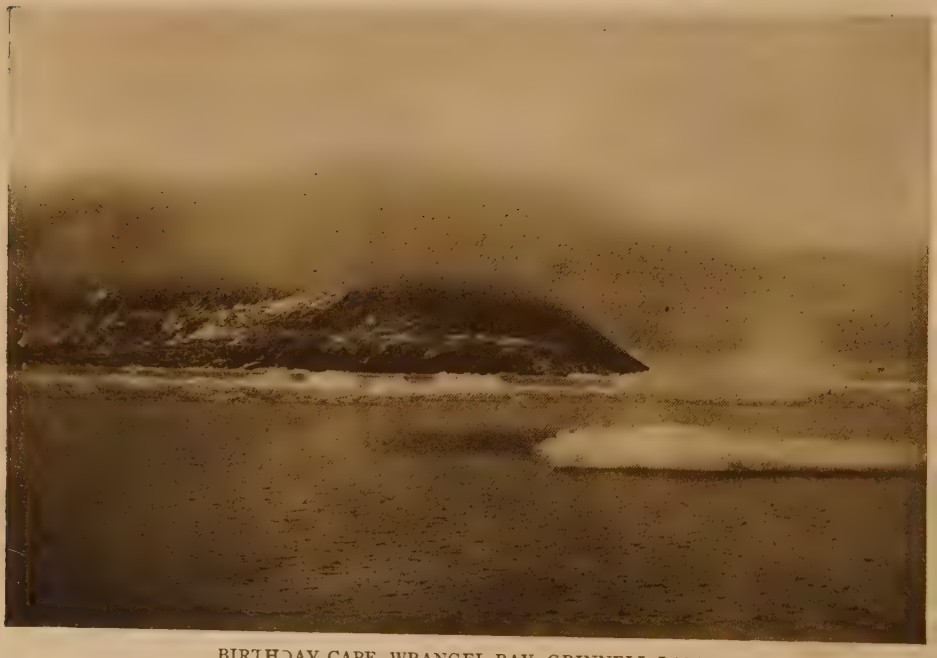
The entire flurry lasted less than five minutes, but in that time the steering gear was almost disabled. The back of the rudder was twisted on the stock, the heavy iron head-bands and fittings broken, and the steel tiller rods snapped. Temporary repairs were effected, and as soon as the pressure relaxed we steamed on around Cape Sumner and tied up to the fast ice in Newman Bay under Cape Brevoort, to repair our damaged steering gear and await the opening of a lead across Robeson Channel to Cape Union or vicinity.

The winter's ice was still intact in the bay, its



BRINGING OFF THE "POLARIS" BOAT, FROM BOAT CAMP, NEWMAN BAY

CAPE SUMNER, GREENLAND



BIRTHDAY CAPE, WRANGEL BAY, GRINNELL LAND

surface level and granular, and the pools of water upon it covered with ice strong enough to support a man's weight.

As soon as the lines were secured I walked ashore and climbed to the summit of Cape Brevoort. The crest of the northward-facing cliffs commanded the entire northern approaches to Robeson Channel, from Repulse Harbour across to Cape Rawson and southward along the Grinnell Land coast to Lady Franklin Bay. The Greenland coast south of Sumner was hidden by the cliffs of that cape. The ice all along the Grinnell Land coast, and in the centre of the channel, and to the northward as far as I could see, was densely packed. The water in which we had come north still remained open and the *Roosevelt* could have worked her way close to the shore along the Greenland coast to Repulse Harbour and possibly to Cape Bryant, had my objective point been in that direction. No indication of lead or crack across the channel was to be seen. While on the summit a school of narwhal came sporting down the shore close to the ice-foot below us.

In Newman Bay we remained five days mending the rudder, replacing the tiller chains with wire cables, and crossing to the south side of the bay, where I took on board the *Polaris* boat left here by Chester and Tyson of Hall's party in 1871, at Boat Camp. Then as the northern ice filled into the bay, we were gradually crowded out of our shelter behind Boat Camp delta, and tide by tide forced out to Cape Sumner, sometimes grazing the shore as we dodged a floe. During this time the Bay filled completely with ice and the entire

northern part of the channel was packed solid. Captain Bartlett and Marvin made several trips to the top of Cape Sumner to reconnoitre the channel but without satisfactory results.

The turn of the tide the morning of the 28th set us out again, and, impatient of the delay, and encouraged by the behaviour of the *Roosevelt* in crossing the channel at Cape Calhoun, fires were cleaned, machinery thoroughly inspected, and at 4:30 A. M. the *Roosevelt* was driven out for another contest with the channel pack in which at the time no pool or lane of water was visible.

Just off the point of Sumner a brief nip between two big blue floes which the swift current was swinging past the Cape, set the *Roosevelt* vibrating like a violin string for a minute or so before she rose to the pressure.

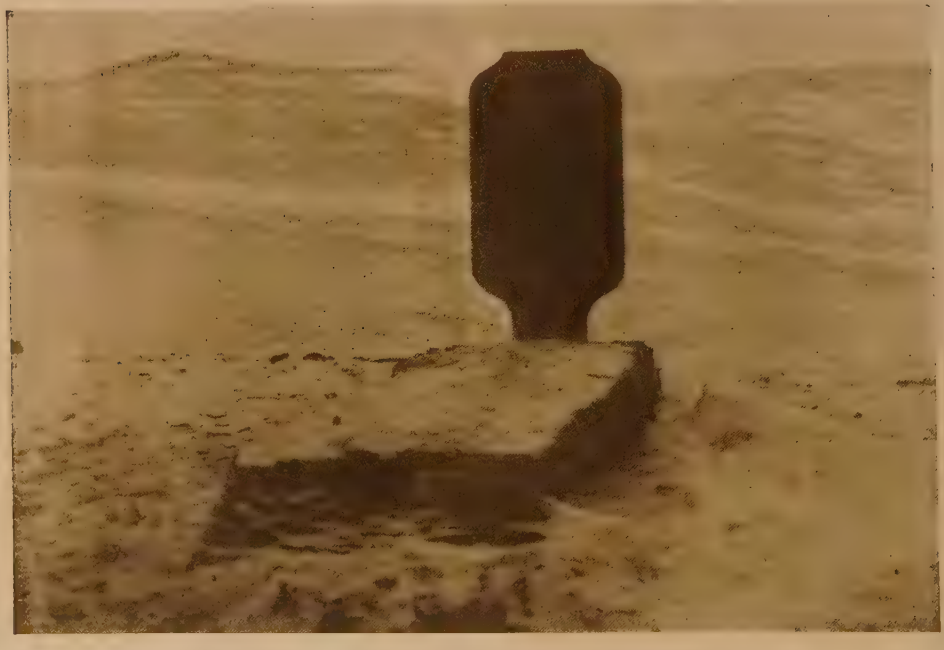
From this we pushed out and began the attempt to cross to the west side, through ice almost continuously up to our plank sheer and frequently of such height that the boats swinging from the deck house davits had to be swung inboard to clear the pinnacles. The delay and inaction of the past five days had become unendurable.

The *Roosevelt* fought like a gladiator, turning, twisting, straining with all her force, smashing her full weight against the heavy floes whenever we could get room for a rush, and rearing upon them like a steeplechaser taking a fence. Ah, the thrill and tension of it, the lust of battle, which crowded days of ordinary life into one.

The forward rush, the gathering speed and momentum,

THE "ROOSEVELT" IMMEDIATELY AFTER ARRIVAL AT CAPE SHERIDAN

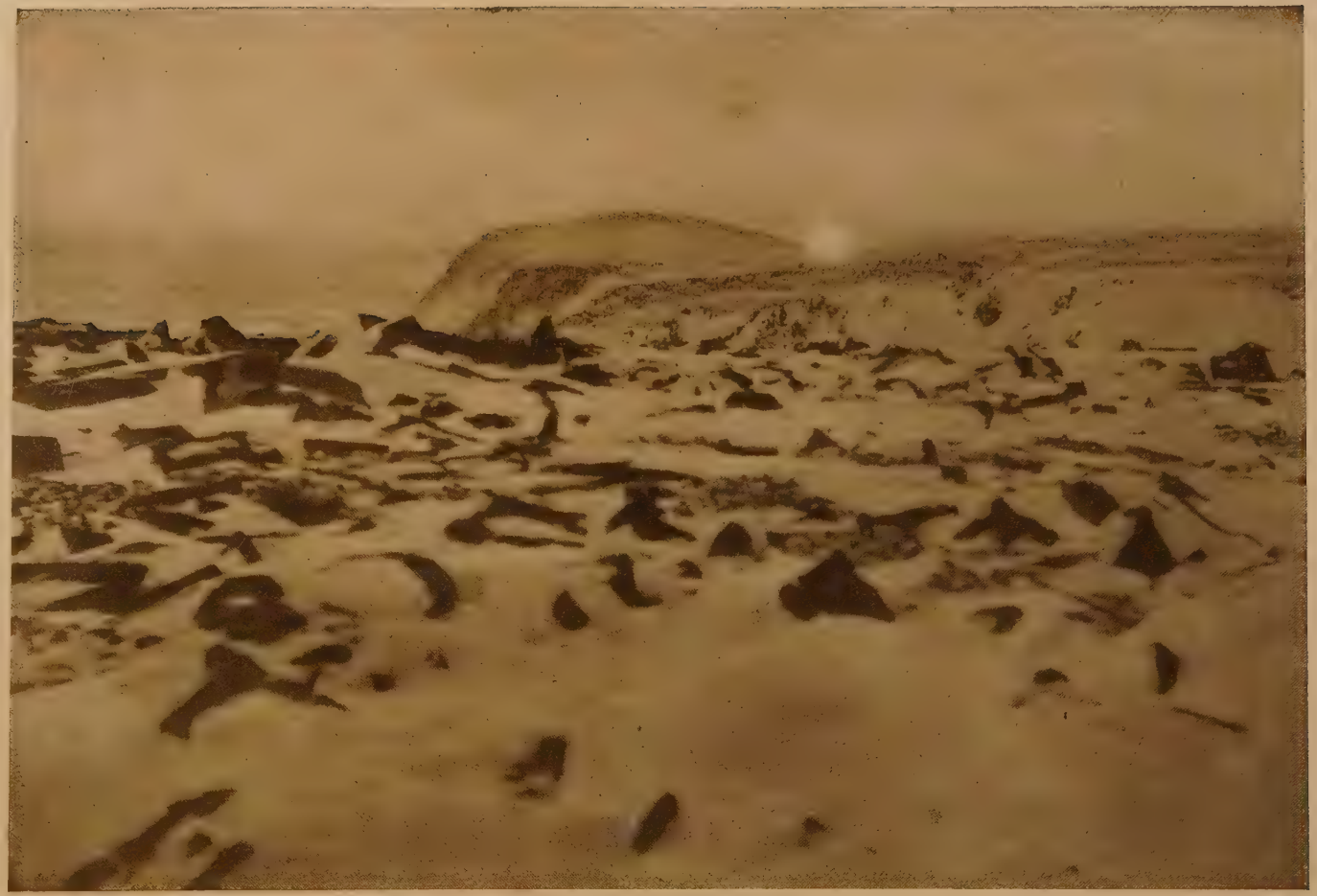
THE "ALERT'S" CAIRN AT FLOEBERG BEACH



PETERSEN'S GRAVE, OVERLOOKING FLOEBERG BEACH

A DAY'S HARE SHOOTING AT SHERIDAN

RETURN OF HUNTING PARTY FROM CAPE HENRY WITH SPECIMENS OF NEW REINDEER
(*Rangifer Pearyi*, Allen) September, 1905



LAST VIEW OF THE SUN, BLACK CAPE, OCTOBER, 12, 1905

the crash, the upward heave, the grating snarl of the ice as the steel-shod stem split it as a mason's hammer splits granite, or trod it under, or sent it right and left in whirling fragments, followed by the violent roll, the backward rebound, and then the gathering for another rush, were glorious.

At other times, the blue face of a big floe as high as the plank sheer grinding against either side, and the ship inching her way through, her frames creaking with the pressure, the big engines down aft running like sewing-machines, and the twelve-inch steel shaft whirling the wide-bladed propeller, till its impulse was no more to be denied than the force of gravity.

At such times everyone on deck hung with breathless interest on our movement, and as Bartlett and I clung in the rigging I heard him whisper through teeth clinched from the purely physical tension of the throbbing ship under us: "Give it to 'em, Teddy, give it to 'em!"

More than once did a fireman come panting on deck for a breath of air, look over the side, mutter to himself, "By G— she's got to go through!" then drop into the stoke-hole, with the result a moment later of an extra belch of black smoke from the stack, and an added turn or two to the propeller.

At midnight all that could be said was that we were nearer the west side than the east, and steadily drifting southward with the pack. I quote from my journal: "Slow and heart-breaking work. The *Roosevelt* is a splendid ice-fighter and if she had her full boiler power she would be irresistible. The ice is

very heavy, in large floes, some of them several miles in diameter and their edges sheer walls of blue adamant. I shall be glad when we are through." In one of her charges the *Roosevelt* left a considerable piece of the stem just under the figure-head as a souvenir upon the top of a berg-piece which she was obliged to butt out of her path. In another, a blue floe twelve to fifteen feet in thickness was split fairly in two.

Until 4 A. M. of the 29th we continued slowly to near the Grinnell Land side. Then but little progress was made for several hours, then another start which was kept up with occasional interruptions until 4 P. M., when after thirty-five and one-half hours of incessant strain and struggle, we drove out into a small pool of water under the northern point of Wrangel Bay. The battle had been won by sheer brute insistence and I do not believe there is another ship afloat that would have survived the ordeal.

Bartlett and I went to our rooms, worn with the long tension, and I fell asleep instantly.

It was the second birthday of a man-child in the distant home, and in my dreams I saw the round face with its blue eyes and crown of yellow hair, smiling at me from the savage mass of black clouds which shrouded the summit of the cape under which we lay. God bless you, little man.

Soon after getting into Wrangel Bay, and while I was asleep, a piece of heavy ice whirling under the stern twisted the back nearly off the rudder, and the entire night was occupied in temporarily repairing the damage. A hunting party of Eskimos sent out

during the night returned the forenoon of the 30th with eleven hares and six musk-oxen. Late in the afternoon an unsuccessful attempt was made to reach Lincoln Bay, from which we were driven back by heavy floes moving southward, and at midnight we were again in Wrangel Bay dodging about to keep clear of the shifting ice, while past the capes the big floes were going south with almost race-horse velocity, the channel and summits of all the land dark with fog. The 31st was spent in the bay keeping clear of the floes which swung into and around it, the night thick with falling snow. Made an early start at 3:30 A. M. September 1st, in fog and a blinding snow-storm, and steamed to the north side of Lincoln Bay, where the unbroken pack again barred our passage and we moored to the exposed face of the ice-foot.

Again I quote from my journal: "A wild morning with snow driving in horizontal sheets across the deck, the water like ink, the ice ghastly white, and the land invisible except close to us as we almost scrape against it on the port side. Summer is at an end and winter has commenced." Scarcely had we made fast to the ice-foot when the ice filled the bay completely.

With the ebb-tide at night much of the ice inside of us passed out, grazing against our side, but no lead formed at the Cape and no opportunity occurred to get north.

With the turn of the flood, the ice came in again with a rush, and the corner of a large floe caught the stern, bent the back of the rudder over to the other side and forced the ship bodily ashore. Here she hung

until high-water, with a heavy berg-piece pressing against her stern and threatening momentarily to press her up the shore beyond possibility of floating again.

Almost unmanageable with her twisted rudder, it was a slow and difficult job to work her through the running ice farther up the bay to a supposedly less-exposed berth, snowing and blowing all this time. Here the back of the rudder was straightened somewhat.

Early in the morning of the 3d, a moving floe forced the *Roosevelt* ashore again, where she hung until the next high-water, and she was hardly pulled off when another floe jammed her hard and fast aground again. I was very anxious to get out of this dangerous and trying position, where the rapid and vicious movements of the ice were a constant menace, but a reconnoissance from an elevation near the *Roosevelt* indicated that the channel north of us was simply solid with ice.

Shortly after midnight of the 3d, the *Roosevelt* floated again and, a southerly breeze forming a little water at the mouth of the bay, we steamed out at 3:30 A. M. and succeeded in getting under the delta of Shelter River just south of Cape Union, and in butting into a natural dock among some stranded berg-pieces. Here the ship had one foot of water under her keel and as we moored her, the slack ice through which we had come jammed tight with floes packing against the barrier at Cape Union. Here we enjoyed a fine day with the temperature in the low twenties and experienced a few hours of peace. The river delta to the north and stranded berg-pieces to the

south protected us from the attacks of the heavy floes passing rapidly a few yards outside of us.

Eskimos sent out for hare here obtained thirty-six. We were now only some fifteen miles from the *Alert's* winter quarters, and a clear run of two or three hours would enable us to beat the record for ships in this region, and save the game for us.

The 5th of September was a memorable day, one that practically ended my fears and anxieties. At 3:30 A. M. we got under way after about an hour's backing and butting to get out of our niche. A narrow strip of water close inshore showed as far as Cape Union where a narrow but apparently dense barrier pressed against the Cape. Would it let us through? As we neared the barrier it was evidently only about a mile wide, with water beyond it extending to Cape Rawson. I kept both watches of firemen on, and routed out the chief engineer ahead of his watch, because it was evident that we must get through *now*. In a few minutes the *Roosevelt* was in the thick of it, throbbing like a motor, the black smoke pouring from her stack, and successfully forced her way through. Cape Union was passed at 4:30 A. M. South of Rawson the ice ran close in against the shore but was looser outside, and we made a wide detour to the northeast, the captain, the mate, and myself in the rigging. The ice was in large, heavy floes and in rapid motion swinging into the mouth of the channel on the flood tide. The anxious moments were numerous both as to whether we should get through, and also as to whether we should escape a serious nip.

Soon we opened up the *Alert's* cairn at Floeberg Beach and could see a narrow canal of water extending close to the ice-foot, and at 7 A. M. the *Roosevelt*, racing with the incoming pack, was driven through a narrow stream of ice and fairly hurled into a niche in the face of the ice-foot under the extremity of Cape Sheridan and made fast. The ice was packed heavily against the point of the cape and grinding past it. Before our lines were made fast the ice had closed in upon us and the open water behind us was rapidly disappearing.

We were now about two miles beyond the *Alert's* position, moored to the exposed face of the ice-foot, with the nose of the *Roosevelt* pointing almost true north. I felt now that the risks, the chances of the voyage were past. The ship might be lost by being forced ashore, for our position was an extremely exposed one, but we were not likely to lose provisions and equipment, and with these the remainder of the programme could be carried out, and even should she get no farther she would have done her duty and achieved the purpose of her being.

With my feelings of relief, was a glow of satisfaction that by a hard-fought struggle we had successfully negotiated the narrow, ice-encumbered waters which form the American gateway and route to the Pole; had distanced our predecessors; and had substantiated my prophecy to the club, that with a suitable ship, the attainment of a base on the north shore of Grant Land was feasible almost every year.

Previous to the *Roosevelt*, only two other ships, the *Polaris* and the *Albert*, had completely navigated these

channels; and two others, the *Discovery* and the *Proteus*, had penetrated them as far as Discovery Harbour.

Our freedom of movement and ability to leave the shelter of the land and cross and recross the channel at will through the heaviest ice, was also gratifying to me.

In the voyage from New York to Etah we had passed the latitudes of the most northern extremities of North America, Europe and Asia.

Since leaving Etah, we had passed the latitudes of the most northern extremities of Spitzbergen and Franz Joseph Land, and now only the northern points of the two most northern lands in the world, Cape Morris Jesup and Cape Columbia, lay a little beyond us. The northern-reaching fingers of all the rest of the great world lay far behind us below the ice-bound southern horizon. We were deep in that gaunt frozen border land which lies between God's countries and inter-stellar space.

AUTUMN AT CAPE SHERIDAN

CHAPTER III

AUTUMN AT CAPE SHERIDAN

IT WAS hoped that the next ebb-tide would give us an opportunity to advance farther, and immediately after breakfast I hurried ashore to examine the ice beyond Cape Sheridan and visit the cairn built by the *Alert* thirty years before. The weather was too thick to permit any satisfactory reconnoissance. I took the *Alert's* record from the cairn, a copy of which Marvin later replaced together with an additional brief memorandum. All the slopes of the land were white with snow above which the cairn, and the lonely grave of Petersen, Danish interpreter of the English expedition, stood out in sombre silhouette. The *Roosevelt* was moored close by a ledge of rocks where, in 1902, I had deposited a small cache for my return.

With the last of the flood-tide the ice pressed in upon us still harder, jamming the *Roosevelt* solidly but not seriously against the ice-foot; and anticipating still further pressures, I had the edge of the ice-foot throughout the *Roosevelt's* length chopped away on an incline to the water level, so that the ship might rise more easily to pressure. A fine snow fell throughout the day. At midnight of the 5th, the sun's disk was apparently about two-thirds below the horizon. The fine snow continued during the sixth and the ice remained unchanged. After supper water

pools off-shore were visible from the summit of the hill. There was evidently sufficient slack in the ice for a fresh southerly wind to form a good shore lead. On the sixth, I sent two parties of three hunters each, with supplies for ten days, out for musk-oxen, one party going southeast, the other southwest. Other Eskimos were sent out for hare. On the seventh it cleared sufficiently to give us our first view of Cape Hecla and the United States Range. September 8th was a brilliant day; three Eskimos came in from Black Cliffs Bay with twenty-three hare aggregating two hundred and eleven pounds. This made the number of hare killed along here nearly one hundred. The Eskimos were started at over-hauling sledges and making harnesses. The 9th was a wonderfully mild day of brilliant sunshine for this time and place. Sent a party to Porter Bay, just south of Cape Hecla, the objective point I have in view for the *Roosevelt*—a beautiful little bay which I examined in 1902, with southern exposure and protected from the running ice. A position here would place us right at the beginning of our work, would be convenient to the musk-ox haunts of Clements Markham Inlet, and would be little or no farther than Sheridan from the musk-ox preserves of the Lake Hazen region. The dogs were all put ashore and found the beds of dry gravel along the shore a much more comfortable sleeping-place than the damp deck.

On the 10th, the temperature rose to 20° and damp snow fell during the night and day. Early in the morning of the 11th, a fresh southerly wind commenced, accompanied by a heavy drift and a lane of water

formed a few hundred feet outside of the *Roosevelt* extending close past the point of Sheridan and on to Belknap. But the ice which held us against the ice-foot remained firmly fixed and we were unable to get into the water. In the evening it had closed again.

Started a party of three Eskimos off for Markham Inlet after musk-oxen. After dinner three Eskimos came in with the meat of four musk-oxen killed in Rowan Bay, and in the evening the Porter Bay party returned with the meat and skins of seven reindeer killed in a valley on Fielden Peninsula. These, the first specimens of this magnificent snow-white animal, were from a herd of eleven surprised in a valley close to Cape Joseph Henry, and among the seven was the wide-antlered buck leader. These beautiful animals, in their winter dress almost as white as the snow which they traverse, were later found scattered over the entire region from Cape Hecla to Lake Hazen, and westward along the north Grant Land coast, over fifty specimens in all being secured. The party reported Porter Bay still filled with the unbroken ice of the previous winter, and therefore impracticable for our winter quarters. The night of the 11th was a perfect Arctic autumn night. To the south over the land the sky pearl-white; west and northwest, about the couchant mass of Cape Joseph Henry, orange-yellow; north, over the Polar Sea, gray-white; east and southeast the snow-clad Greenland coast lay under the purple shadows of the coming "Great Night." On the 12th a fresh southerly wind set the snow drifting savagely on all the uplands, flung out a long snow-banner from the summit of Rawson, and formed a

broad lane of water reaching from behind Rawson past us and on toward Cape Henry. During the 12th and the 13th every effort was made with pick-axes and dynamite to effect a passage to this water, but without success. On the 14th, I sent a party of four Eskimo hunters off to Lake Hazen. Since our arrival, the Eskimos, when not otherwise engaged, were getting the supplies from the main and after holds up on deck, in readiness for landing as soon as it was settled where our winter quarters would be.

About 10 P. M. of the 16th, as I was on the bridge taking a look about before turning in, a large floe moving on the flood-tide pivoted around the point of Sheridan and crashed into the smaller ice about the ship, driving it bodily before it. At the first shock the *Roosevelt* reeled and shook a bit, then heeled slightly toward the crowding ice and turned it under her starboard bilge. Standing on the starboard end of the bridge and looking down upon the ice the sensation was much like that of being on a large sledge moving over the ice, so rapidly did the rounding side of the *Roosevelt* turn the ice under her. Once or twice she hung for an instant and quivered with the strain, then heeled and turned the ice under again. This continued until a corner of the floe itself, some portions of which were higher than the rail, came full against the *Roosevelt's* starboard side amidships, with no intervening cushion of smaller ice and held the ship mercilessly between its own blue side and the unyielding face of the ice-foot. Its slow resistless motion was frightful yet fascinating; thousands of tons of smaller ice which the big floe drove before it, the

Roosevelt had easily and gracefully turned under her sloping bilges, but the edge of the big floe rose to the plank sheer and a few yards back from its edge, was an old pressure ridge which rose higher than the bridge deck. This was the crucial moment. For a minute or so, which seemed an age, the pressure was terrific. The *Roosevelt's* ribs and interior bracing cracked like the discharge of musketry; the deck amidships bulged up several inches, while the main rigging hung slack and the masts and rigging shook as in a violent gale. Then with a mighty tremor and a sound which reminded me of an athlete intaking his breath for a supreme effort, the ship shook herself free and jumped upward till her propeller showed above water. The big floe snapped against the edge of the ice-foot forward and aft and under us, crumpling up its edge and driving it in-shore some yards, then came to rest, and the commotion was transferred to the outer edge of the floe which crumbled away with a dull roar, as other floes smashed against it, and tore off great pieces in their onward rush, leaving the *Roosevelt* stranded but safe.

When the tide turned on the ebb the ship settled down again considerably but never floated freely again until the following summer. Anticipating further pressure with following tides, and to provide against the contingency of the ship being rendered untenable, the work of putting some coal and all supplies and equipment ashore was commenced at once and prosecuted without interruption by the officers, crew, and Eskimo men, women, and children, for some thirty-six hours. Planks were put

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from the rail to the ice-foot on the port bow, quarter and amidships, and the boxes of provisions slid down these, when men took them and put them back from the edge of the ice-foot, where the women loaded them upon sledges and pushed them beyond any danger of loss by disruption of the ice-foot itself. This work was greatly expedited from the fact that practically all the supplies had been taken out of the holds during the previous days and were lying on deck. While the work was in progress one of the Eskimos of my southwest scouting party came in on foot reporting twenty-one musk-oxen killed in Porter Bay. The next night there was a brief and not serious pressure, then the ice about the ship quieted down again, though it ran strongly with the tides some fifty yards outside of us.

Of course this occurrence put all ideas of any farther advance out of question, and the usual routine fall work of an Arctic expedition and preparation for wintering were inaugurated. Hunting parties of the Eskimos were kept constantly in the field, covering the country north to Clements Markham Inlet and south to Wrangel Bay and Lake Hazen. The results of these parties were satisfactory, considerable numbers of musk-oxen and reindeer being secured. Almost every day one or two hunters went out from the ship and in this way some hundred or more hare were secured in the immediate vicinity. But musk-oxen were to be our mainstay, and while my confidence that we should find numbers of these animals within a comparatively short distance of the ship was justified by events

I still recognised that our main source of supply must be the drainage basin of Lake Hazen, the northern portion of which, covering the southern slopes of the United States Range, had not been drawn upon by me while at Fort Conger between 1899 and 1902.

This region was now tapped with great success by parties travelling directly overland from the ship to Lake Hazen.

The boxes of provisions which had been landed were fashioned by the crew into three box-houses, a large one some thirty feet long by fifteen feet wide which, roofed with the spanker and fitted with a stove and fuel, was to serve as an immediate refuge in case of mishap to the ship, and two smaller ones. The larger tents were also set up ashore, the boats turned bottom up and the barrels arranged in such a way as to serve as wind-shelters for the dogs. Later on houses and tents were heavily banked with snow. All the heavy ice next to the ship on the starboard side was cut down on a gentle slope ending at the water level against the ship's side, and a bank of small fragments of ice filled against the ship her entire length to serve as a cushion. On top of this a wall of snow blocks was built as high as the rail and from the mainmast to the mizzenmast as high as the top of the deck-house. The deck was covered deep with snow and the forward and after deck-houses covered and banked in with the same. No attempt was made to house in the deck with sails, but snow vestibules or entrances were constructed at all of the outer doors.

The Eskimo men when not in the field were occupied in making sledges and harnesses, each man his own

sledge, and with the waning of the light, I had a fleet of some twenty-five sledges in commission. Attempts were made to hoist the rudder on deck so that it could be repaired, but without success.

Marvin erected a tide gauge on the ice-foot protected by a snow igloo, and took tidal observations during a period in excess of a lunar month.

A disagreeable feature of this time was the frequent occurrence of violent southerly winds varying from vicious squalls of a few hours' duration to furious gales lasting two or three days. These winds invariably denuded the land in our vicinity of snow and were always accompanied by more or less extended open water. As late as October 16th, a ship located south of Rawson could have come around that cape and made our present location with even greater ease than did the *Roosevelt* on the 5th of September. On one occasion such a ship could have gone on without obstruction to Cape Joseph Henry, passing about one hundred yards outside of our position. Naturally under these conditions the mean temperature was unexpectedly high.

October 1st, our large game score reached seventy-three musk-oxen and twenty-seven reindeer, just an even hundred. On this date small stoves were set up for the first time in the after house. October 2d, the boilers were blown off for the winter. October 3d, I started to make a reconnoissance of our spring route to Hecla, as my observations in 1902 had satisfied me that there was a better route than that followed by the English across Fielden Peninsula. I also wished to examine Clements Markham Inlet for

musk oxen. Two marches from the shiptook me to the mouth of Clements Markham Inlet; one day of thick weather was devoted to a trip part way into the inlet and back; and the next two brought me back to the ship, my anxiety for her having prevented my remaining out as long as I wished. It was a new and not particularly agreeable feeling to me to be hampered by the cares of a ship, and thus kept from active field-work, but I accepted the conditions and shifted the burden of the remainder of the fall and winter work to the younger shoulders in the party. On the 9th, our large winter lamps were put in commission for the first time. On the 13th, I snowshoed to the summit of Black Cape and saw the sun for the last time, peering for a moment through the misty ice-filled opening of Robeson Channel to the south. From Cape Sheridan, past Rawson, and on down past Cape Union there was plenty of open water and across the mouth of the channel to Repulse Harbour there was nothing but light trash ice. For a few moments the sun's rays lit the entire southern summit line of the United States Range, crested Mount Cheops with rose, and just touched the peaks of Cape Joseph Henry. It was so low, however, that the shadow both of Greenland and of Grant Land reached northward across the pack ice to the blue-black northern horizon except where it streamed through between the precipitous walls of the Channel itself forming a broad band of yellow light between the shadows on either side, "the Gateway to the Polar Sea."

October 16th was marked by the most violent gale we had had since leaving home. This gale left the

land almost as bare as in summer, and the water formed by it was more extensive than at any time for a month. After all these gales, Cape Joseph Henry stands out in black and savage profile. Of all capes fronting the Polar Sea along the coasts of Greenland and Grant Land, this is the most ideal.

Soon after this, with almost the suddenness of lightning from a clear sky, I faced the possibility of the complete crippling of the expedition by the extermination of my large pack of dogs. About eighty of these indispensable animals died before the cause was traced to poisoning from the whale meat which I had taken for dog food. This meat to the amount of several tons was thrown away, and I found myself confronted at the beginning of the long Arctic night with the proposition of subsisting my dogs and most of my Eskimos upon the country.

Without my previous familiarity with the region, this would have been an absolute impossibility; even as it was, it possessed elements of uncertainty, but with the satisfactory start already made in obtaining musk-oxen, and knowing that these animals could be killed by those who knew how, even in the depths of the great Arctic night, I believed there was somewhat more than a fighting chance for success.

On the 25th, portions of four hunting-parties from the Lake Hazen region came in, bringing reports of a bag of one hundred and forty-four head of musk-oxen and deer. Following the return of these parties the dogs died rapidly, the number one night reaching ten. It was evident that prompt

action must be taken, and in three days one hundred and two dogs, twenty adult Eskimo men and women and six children were sent into the field in addition to those already out. From this time until the 7th of February, the dogs and the greater portion of the Eskimos remained in the Lake Hazen region, a portion of the men coming to the ship during the full moon of each month with sledge loads of meat, and returning with tea, sugar, oil and biscuit. With their departure the ship was almost deserted, daylight was nearly gone and the winter may be said to have commenced, though for convenience it was assumed to begin on the 1st of November when the winter routine of two meals a day went into effect, partly as a measure of economy, and partly to leave the short and very rapidly decreasing hours of twilight in the middle of the day uninterrupted for work.

The ice outside of us was constantly in motion, more or less active with the currents of the tides, and about the middle of October the young ice incessantly forming between the large floes became of such thickness, that its crushing up rendered the movement of the ice very audible. First as a loud murmur, later with increasing cold as a hoarse roar, sometimes continuous, sometimes intermittent, like heavy surf upon the shore, which kept the air vibrating, and coming as it did through the darkness and frequently snow-filled air, contained a peculiarly savage and foreboding note. On the 31st, after dinner, I climbed to the summit of our lookout hill and sat for some time upon a projecting rock. A fine snow was falling amidst a semi-luminous fog, through which just the

outlines of the *Roosevelt* loomed. I quote from my journal as follows:

The *Roosevelt* lies below me, on one side the frozen shore of the Arctic "Ultima Thule," on the other the great white disk of the central Polar Sea with its mysteries and its terrors, its story of heroic effort, and its still unconquered secret. No other ship has been so far north in this region and but one other ship has reached so high a latitude anywhere in the entire circuit of the Polar Sea, and that one did not attain her vantage ground by stress of continued battle, as has the *Roosevelt*, but drifted to her position—helpless and inert in the grasp of the ice.

Yet the *Roosevelt* lies there, sturdy but graceful, her slender masts piercing the fog and falling snow; a nimbus-circled glow of light at every port, and a broad bar of yellow luminance from the galley lamp shining forward over her and out through the mist, just as if she were a steamer anchored in the North River in a foggy night.

As I look at her a whole series of pictures rises before me. The bright days at Bucksport, Maine, when I and one other watched her grow into sturdy shape under the fostering care of her builder, Captain Dix; the launching, when Mrs. Peary, smashing an ice-encased bottle of wine against the steel-clad stem, christened her "*Roosevelt*"; New York Harbour, with the tribute to her mission, from all the surrounding craft; that black night in the straits of Belle Isle; the fog-shrouded swell of the North Atlantic and Davis Strait; the familiar black cliffs

of Cape York rising directly over her bow; the perfect summer day at Bache Peninsula; the battle-royal with the huge floes as we crossed and recrossed Kennedy and Robeson Channels; the towering cliffs of Cape Constitution, Franklin Island and Polaris Promontory as she breasted the fierce north wind blowing down the Channel, with her engines stubbornly throbbing "Northward, Northward, Northward"; and finally the view that gray September morning when we rounded Rawson and opened up the ice-bound northern shore of Grant Land, with the wide-stretching ice-fields of the central Polar Sea fading away under the northern horizon.

THROUGH THE "GREAT NIGHT"

CHAPTER IV

THROUGH THE "GREAT NIGHT" ON THE SHORES OF THE CENTRAL POLAR SEA

THE winter, which for convenience I assume to comprise the time from November 1st to February 7th, the date of the return of the last of the field parties, was marked by practically the same ice and atmospheric conditions as the fall, accompanied of course by a greater degree of cold and almost entire absence of light.

Through all its vicissitudes and against continued stress of wind and ice, the *Roosevelt* clung to her moorings against the ice-foot, presenting a marked contrast to the usual pictures of Arctic ships in winter quarters. Having no topmasts to house, the ship's slender masts and light but effective rigging rose aloft just as they did in the summer time. With decks uncovered and only the houses banked in with snow, at a little distance in the dim light the ship's general appearance was much as when afloat. One very distinctive, very salient feature, was the galley lamp, the "eye of the *Roosevelt*" as it was called, which night and day from early October, when the sun left us, until early March when it returned, shone through the galley window, lighting the main deck and piercing the darkness, the falling snow, the fog, for a considerable distance on either bow. This beam of yellow

light showed clearly from the top of the lookout hill which some of us climbed every practicable day, and was visible to every returning party from Hecla or the hunting fields of the interior as soon as it rounded Cape Sheridan.

To anyone given to a belief in such things there were several encouraging omens about the ship's position. The *Roosevelt's* nose pointed persistently almost true north, the bright yellow eye looked incessantly to the northward and the beaten sledge road from the ship to all points of communication led north along the ice-foot.

The southerly gales continued to occur with frequency, and increased in violence as we neared the depth of winter. The movement of the ice was nearly continuous, becoming very pronounced on each spring tide, and the roaring of the pack at these times grew louder and more vicious as the newly forming ice grew in thickness and hardness.

This movement of the ice culminated on Christmas night in the breaking away of the ice from the ice-foot and the starboard side of the *Roosevelt* and, so far as could be determined in the darkness, the complete disruption of the pack adjacent to the shore and in the mouth of Robeson Channel. This disruption probably covered the entire segment of Lincoln Sea from Cape Joseph Henry to Cape Bryant and probably beyond.

Open water in the shape sometimes of leads, sometimes of lakes, was also of almost continuous occurrence.

Repeated pressures were experienced by the *Roosevelt*, none of them very serious, but sufficient to keep

CAPE SHERIDAN AND THE POLAR OCEAN

THE "ROOSEVELT" AT CAPE SHERIDAN AFTER A SOUTHERLY GALE

us on the *qui vive* all the time. The snow upon the land and along the ice-foot, which at first necessitated the use of snowshoes, eventually became packed by the recurring winds, until it would support the weight of a man. Nearly all conditions were almost entirely the reverse of those experienced by the British expedition in the same region thirty years previous. The winter moons in this high latitude were of long duration and of great brilliancy unless obscured by bad weather.

The usual monotony of an Arctic winter was entirely destroyed for us (outside of the continuous excitement which the movement of the ice afforded us) by the extensive widening of our horizon as a result of my settlements in the interior. The largest of these was located upon the southern slopes of the United States Range north of Lake Hazen; another near the head of Lake Hazen; and a third at the Ruggles River, with intermediate snow houses along the trail between the settlements and the ship.

From these settlements at the beginning of each moon sledges came in bringing loads of musk-ox meat and news of the hunt during the preceding weeks. These sledges remained a few days at the ship, then outfitted again and went back with new instalments of Eskimo families to spend the interval until the next moon in the interior. As a result of this there was constantly something to talk of and something to look forward to.

Preparations for the spring sledge journey were carried on continuously, more sledges were built and tents, harnesses, traces, and fur clothing made; the

Eskimo women in all work demanding sewing proving themselves invaluable. Pemmican was taken from the cases, canvassed in packages convenient for handling and stowing upon the sledges, and numbered, under the supervision of Mr. Bartlett, the mate. My own time was fully occupied in planning and supervision and in devising some new methods and items of equipment.

Personally I have never spent a winter in the Arctic regions so free from petty annoyances and discomforts, both physical and mental. The members of the party were congenial, cheerful, energetic, and interested in the work. The ship's people were interested and willing, and the atmosphere of the ship lacked entirely the element of friction which is so often an extremely disagreeable feature of Arctic winter life.

Captain Bartlett relieved me of all detailed care of the ship, receiving and carrying out my general suggestions with great energy and intelligence. I felt that the physical well-being of the party was safe in the hands of Dr. Wolf, and Marvin relieved me of the routine drudgery of observations in addition to assisting in other ways. Added to this, Percy the steward was unremitting in looking out for my physical comfort.

There are, however, so many trump cards which can be played against him who attempts to do serious work in the highest latitudes, that there is always some vital point which in spite of every care and provision and forethought threatens to go wrong.

The present occasion was no exception to the rule. Besides my anxiety in regard to the *Roosevelt*, which in comparison was of minor importance, I was

in a constant state of apprehension in regard to the dogs. Each party coming from the interior brought reports of additional deaths among these animals, until their number was reduced to the danger limit below which it would be impossible for me to carry out essential features of the spring campaign.

In spite of these anxieties, however, my freedom from minor annoyances afforded me time and suitable frame of mind to devise new methods and items of equipment which assisted materially later on. Among the latter was a quick-acting alcohol camp stove, built upon a new principle; and among the former a plan of campaign and method of advance which possesses valuable possibilities, and which had it not been for the unusual ice conditions marking the year, and particularly the disruption of the pack by the April storm, would have enabled us to grasp the prize which was the object of the Expedition.

Mingled with this work and these plans and anxieties, were times for thoughts and impressions some of which will be given here even though they may interest no one but myself, because to every normal mind they are as much a part of the Arctic winter night as the ice, the darkness, and the cold. Moments of exultation and moments of depression. Moments of eager impatience when I wished that the day for the departure north might be to-morrow. Moments of foreboding when I dreaded its arrival. Moments of sanguine hopes, others of darkest misgivings. Thoughts and memories of the home land, dreams and plans for the future. At times the days seemed to rush by with the velocity of the flood-tide past Sheridan, at others

they were as tardy as if moored to a rock. At all these times the pianola, Mr. Benedict's splendid gift, was invaluable, soothing and lightening many an hour, and sending me back to my work refreshed and with new energy. For rest and recreation from the monotony of incessant planning about the spring campaign, I began upon plans for another ship of the same general size and model of the *Roosevelt* for Arctic or Antarctic work, but with improvements and details modified in the light of experience gained with the *Roosevelt*.

November 1st I placed a minimum self-registering thermometer on the top of a hill 410 feet high about a mile distant from the *Roosevelt*. On the 2d among other work some baled hay was opened for use in connection with the snow houses ashore, and the perfume of it brought back a rush of associations. What a contrast—this frozen night-canopied land- and sea-scape, and warm summer hayfields in God's country. It does not seem as if both could be upon the same planet.

On the 8th four families of Eskimos came in from the Ruggles River. They have been in the field twenty-seven days and have secured some seventy-five musk-oxen, thirty to forty hare and twenty to twenty-five foxes. Besides musk-ox meat they brought in some hundred pounds of the peerless salmon trout from Lake Hazen.

On the 15th an aurora, one of several successive displays of no great brilliancy, was in several respects different from any that I had ever noticed. Occurring in the east directly over some pools of open water it

SHAPING THE RUNNERS

DRILLING HOLES FOR THE LASHINGS

ESKIMOS MAKING SLEDGES ABOARD THE "ROOSEVELT"

SALMON TROUT FROM LAKE HAZEN

ESKIMO WOMAN FISHING ON LAKE HAZEN

ESKIMO MEN FISHING ON LAKE HAZEN

was so low as apparently to emanate from the water, and at irregular intervals the faint patches of auroral light would disappear completely to be replaced a moment later by a single bright spot like a pale parhelion close to the water. Occasionally in place of the parhelion a bright narrow vertical bar of light appeared. The 16th was marked by pronounced barometric and thermometric fluctuations, the former downward, the latter upward, these abrupt changes followed by violent wind from the south, and this in turn by a mile-wide belt of water reaching from behind Rawson past the ship and Cape Sheridan, and so northward toward Henry as far as could be seen in the obscure moonlight.

The view from the hill in the evening was striking. The brilliant moonlight; the sky blue-black except where flecked with silvery clouds; the dead white of the ice; the inky blackness of the water; the ghostly shapes of the land; the one tiny speck of yellow light shining out from the *Roosevelt*. Accompanying and adding a touch of action to this outlook was the rush of the wind which, although laden with drifting snow, seemed yet to have a touch of warmth in it, and the cries of the Eskimo children playing on the ice-foot, mingled with the sound of waves dashing against the edges of the lead, and the distant hoarse roar of the ice pack surging back with the flood tide into the mouth of Robeson Channel.

The 25th was marked by groans and complaint from the *Roosevelt* and the ice about her, accompanied by loud roaring of the heavier floes as they ground past the point of Sheridan during the greater portion of the flood-tide.

Thanksgiving Day was marked by the presence of plum-pudding, candy and cigars on the dinner table, and a graphophone performance by the Doctor in the evening. December 4th, on the first of the moon, two Eskimos came in from the interior reporting thirty-three musk-oxen killed during the past month and that twelve to fifteen more dogs had died. During the December moon the Doctor made a number of photos of the ship.

On the 16th Henson and six Eskimos came in and reported twenty musk-oxen killed since the last report. This makes sixty-two in all since the exodus from the ship the last of November. This is very satisfactory, but is more than balanced by the news of additional deaths among the dogs. Two large buck reindeer were found on the southern slopes of the United States Range with their horns locked, frozen in a death struggle. On the 17th with the running of the spring tides there were again serious complaints from the *Roosevelt* and the neighbouring ice. On the 18th, Marvin left with four Eskimos for the Lake Hazen colonies to remain until the February moon. The winter solstice occurred on the 22d, the sun (invisible to us of course) in the early morning hours reaching his greatest southern declination, the midnight hour of the "Great Night." From now on he would be slowly coming back to us. This is the New Year's day of the northern hemisphere, a world-day beside which our artificial dates and holidays pale, and nowhere else meaning so much as here in this black disk of the "Great Night."

About 2 A. M. of Christmas Day the wind began

blowing from the south and was soon howling across the ship in a level torrent of white rage. Every stay and shroud was humming like a great æolian, and the ice about us was cracking and groaning with the strain. So violent was the wind that the window of the Captain's stateroom was blown in. At 8 A. M. it was absolutely calm, the stars shining brilliantly, temperature at -6° F. and the air resonant with the dash of waves against the opposite side of the broad lead of open water.

The mess rooms were decorated with flags by the Doctor, and there were presents for everyone, principally candies and other creature comforts contributed by friends at home, at the head of whom stood Huyler. Among my own presents were a bottle of special champagne from home, another of ancient Tokay from a thoughtful friend, two or three letters, and a pillow of fragrant fir needles from Eagle Island, in a case worked by the blue-eyed little one who herself had been born within the precincts of the "Great Night." The Christmas dinner was a special event shared alike by those forward as well as aft and appreciated by everyone.

Our Christmas festivities had, however, a somewhat startling and entirely unexpected ending. After dinner I paced the ice-foot for a couple of hours, busy with the crowding thoughts which my letters and presents had brought to me. Returning to my room I sat down to listen to the graphophone which the Doctor had started in the neighbouring mess room. A little later the ice began cracking and groaning, and in a moment or two it was evident to me that there was a

new note in its complaint, entirely different from the usual accompaniment of the running of the spring tides. I stepped out upon the quarter-deck and could not only hear but feel the ice humming and cracking, not loudly but viciously under intense pressure. I called the Captain, stepped inside to put on my coat, extinguished my fire and the one in the adjoining workroom with a dipper of water, blew out my lamp, and passed forward through the house to the main deck.

When I reached there the ice had separated from the ice-foot, and the heavy floe which had squeezed us last September was moving off carrying with it our starboard ice-wall and leaving the starboard side of the ship completely exposed, with the black water lapping against the planking.

In a surprisingly short time the ice had disappeared completely in the inky darkness, and the black water stretched apparently limitless, giving back the image of every star. There was no cause for instant apprehension, the trouble would come when the ice came back with the turn of the tide, with nothing between the ship and it to break its momentum or cushion its blow.

The Eskimos were running about in great excitement, bringing up their children and household goods from the 'tweendecks; and not caring to have a lot of women and children to fall over in case of trouble, I had the stove in the big box house fired up and sent them all ashore to that shelter with their bedding and clothing. One of the crew and one of the Eskimo men who were temporarily on the sick list were likewise sent ashore.

MOONLIGHT VIEW OF THE "ROOSEVELT" IN HER WINTER QUARTERS

Exposed with full moon for three hours, December 12, 1905, by Dr. Wolf, Surgeon of the Expedition

THE BOW OF THE "ROOSEVELT" IN WINTER QUARTERS

Then accompanied by the Captain I made a careful tour of inspection of and about the ship, pointing out the possibilities of our position, and indicating what should be done to provide as far as possible against all contingencies. A full watch was kept on and everyone else turned in with their clothes on. The following day men and officers and Eskimos were busy running out all available lines from the port bow, quarter, and amidships, and also from the mast-heads.

The weather continued clear and the temperatures very moderate. The evening flood-tide caused a great deal of movement and noise all about us, but brought no direct pressure upon the ship.

I had no fears that the *Roosevelt* would be crushed by any onset of the ice, but I did apprehend that she might be forced bodily up on to the ice-foot, thrown on her beam ends and pushed so far inshore that it would be impossible to float her another season. Another possibility was that a particularly violent gale, such as might occur at any time, would tear us from our moorings and carry us out into the moving pack, in which event there would not be one chance in a hundred of our being able to get the ship back to her present position again.

On the morning of the 28th a gust of south wind blowing through the ventilator holes in my stateroom door woke me and I went on deck immediately. It was then very clear, with the wind light and baffling from every quarter, evidently gathering its forces. At 5 A. M. it came on with a rush from the south, and increased in fury until nothing could be heard above

its roar, and the ship was completely submerged in a blinding cataract of snow. In a short time a piece of ice on our starboard quarter began groaning and grinding against the ship's side. Fearing it might break loose and, in the event that our propeller and rudder post were frozen into it, tear our stern from its moorings, every piece of line that could be found was run out from the port quarter and made fast to the ice-foot. As in all of these gales the temperature was comparatively high, being in this instance from seven to fourteen degrees above zero. Otherwise the work would have been extremely trying and even dangerous. One of the crew stumbling in a crack a few yards from the ship lost his bearings and after some time brought up at the box houses on the shore. Some of the Eskimos coming from the box houses to the ship lost their way and groped for some time before they got their bearings. At noon the wind had moderated and our stream anchor was attached to the end of the port chain cable, placed in a hole dug for it in the ice-foot behind a large grounded floeberg, and then frozen in.

For several hours during the day the *Roosevelt* rolled pronouncedly on the swell, swinging round Rawson from the wild sea in the mouth of Robeson Channel.

For several days after this there was more open water in the neighbourhood than at any time since our arrival. All the upper part of Robeson Channel was open and everything to the northeast and north from Rawson round to Sheridan and beyond inky black. At 3 A. M. of January 1st, the ice came in against our starboard side with a steady roar, but the

Roosevelt turned it under her like water running into a mill race, and the pressure ceased before any unusually heavy ice came against her. A little later the ice swung completely off-shore again.

The night of the 6th was a disagreeable anniversary to me. Seven years before I was struggling across Lady Franklin Bay in bitter cold and complete darkness, to bring up finally at Fort Conger with both feet frozen.

On the 7th a new baby arrived in the Eskimo settlement, a girl, quite likely the most northerly born of all children. On the 9th the air all day was full of the groaning, roaring, grinding of the ice, though no pressure came upon the ship.

This noise and commotion of the ice occurred almost continuously during the month, varying in intensity from time to time and the *Roosevelt* was subjected to pressures of more or less force. It was a period of constant anxiety with the ice pack surging back and forth along the shore on each tide and liable to crash in upon us at any time. Every one slept in their clothes, all lanterns and portable lights were kept filled and trimmed ready for immediate use, and provision was made for the instant extinguishment of all fires. The welcome twilight of returning day steadily increased, a considerable contingent of the Eskimos from the interior returned to the ship in the January moon bringing letters from Marvin containing the report of more musk-oxen secured. On the 7th of February, with the first light of the February moon, Marvin himself came in with the balance of the Eskimos and dogs and the report of more musk-oxen killed. This closed the winter campaign.

SHERIDAN TO THE BIG LEAD

CHAPTER V

SHERIDAN TO THE BIG LEAD

ON FEBRUARY 19th, Captain Bartlett left finally for Cape Hecla. Marvin and party followed the next day, Dr. Wolf and his party the next, and I two days later.

When I left the *Roosevelt* there was a lead of open water extending from Cape Joseph Henry past Capes Sheridan and Rawson, The northern part of Robeson Channel was open. There was open water along the Greenland coast as far as the Black Horn Cliffs and apparently to Cape Bryant, with numerous pools and leads in the sweep from Cape Henry to Cape Bryant.

Three marches brought me to Cape Hecla, where the entire outfit was assembled. Our encampment comprised Captain Bartlett, Dr. Wolf, Marvin, Henson, Clark and Ryan, myself and twenty-one Eskimos, with 120 dogs—the personnel for one main and five or six division parties, which according to my programme I hoped would be able to advance supplies and maintain communication to a base as high as Abruzzi's "Farthest" for my final point of departure.

Point Moss, some twenty miles west of Cape Hecla, was determined upon as our point of departure from the land. Two days were spent at Cape Hecla resting the dogs, repairing sledges, harnesses and equipment,

and re-stowing sledge loads, the expedition quartering in seven snow houses and subsisting upon four musk-oxen killed just back of Cape Hecla.

On February 28th, Henson left Cape Hecla with a pioneer party of three light sledges. Captain Bartlett and his party followed the next day, then Clark and his party, then Dr. Wolf, then Marvin, Ryan and myself. During our stay at Cape Hecla there was open water along the ice foot and a large lead reaching north from the cape.

I quote from my Journal;

March 4th.—Still blowing viciously from the west with blinding drift. My men came in from feeding the dogs, with their clothes driven full of snow.

Of course, everything is still stalled by the furious wind. Henson should be three marches out on the ice, Bartlett two, and the Doctor one. Clark is at Point Moss, I am here with four men, and Marvin should be on Fielden Peninsula.

I have, however, no reason to complain of the weather. From the 19th till yesterday there has been no really bad weather and the first five days here were perfect, considering the place and the season, enabling me to get my parties away and attend to all essential details without serious discomfort.

Now we are well supplied with food, and the dogs have plenty to eat and are well sheltered. The wind has closed all the water, for the time being at least. My new device, the alcohol lamp, is working out finely and makes tea or coffee almost in no time.

WEIGHING MUSK-OX MEAT

REINDEER AND MUSK-OX MEAT IN THE RIGGING

CROSSING FEILDEN PENINSULA

Marvin came in from the ship at 9 P. M. of the 4th, with three Eskimos and Ryan, the fireman who was to take young Percy's place, the latter having been invalided back to the ship with an injured eye.

On the 5th, the last eight sledges got away for Point Moss, I bringing up the rear with Inueto, as I had to see that things remaining at Hecla were left in order, and the permanent igloo there closed against wind and drifting snow.

The day was clear and cold with violent gusts of wind from the northwest driving in our faces.

My sledge being loaded with bulky articles of spare equipment, was somewhat top-heavy and repeatedly capsized.

I arrived at Point Moss a little before midnight, after a good but fatiguing march. It was brilliant moonlight, and the twilight arc now swung nearly all the way through north.

March 6th I left Point Moss and headed northward from the land over the Polar pack.

In 1902 it was just a month later that I left Hecla going north. And four years previous, on the 6th of March, I left Payer Harbour with eighteen sledges on a journey which took me to 84° 17′ north latitude; a great march as regards distance and latitude covered.

I quote from my Journal: "If I can do as well this time we shall win. God and all good angels grant it, and let me seize this great trophy for the Flag."

We were rather late in getting started and it was noon when we left the edge of the ice some two miles north of the land. Here the sun was visible for a few

moments through a notch in the southern mountains. Was it a good omen? I thought that it must be.

An ideal day, clear and calm and bitter cold, the southern sky vivid yellow, the northern rose-coloured like my dreams.

The going was good at first though our trail was tortuous, but later became extremely arduous.

Reaching Henson's first igloo, Marvin, Ryan and I remained and began working upon an additional igloo, while I sent my Eskimos ahead with half-loads to form an advance cache and reconnoitre the ice. They returned with a report that the ice was heavily rafted since yesterday's party passed and the trail faulted. Two sledges were considerably damaged by the day's work. My supper and breakfast of tea and raw frozen, musk-ox steak were more than enjoyable.

Again I quote from my Journal: "The battle is on at last. We are straightened out on the ice of the Polar Sea heading direct for our goal."

The 7th was another fine day, somewhat milder than the 6th with more or less mist hiding the land and partially obscuring the sun. Good going up to the advance loads, beyond which, after some skirmishing, we picked up the broken trail again on young ice. While we were traversing this ice, pronounced movement occurred and leads and rafters began to form about us, sometimes occurring between successive sledges, and it required rapid, effective work to assemble all the sledges upon a fragment of old floe some hundred yards across, where we were compelled to wait some time, until the motion of the ice ceased. When it did so, after another brief skirmish, we picked

CAPE HECLA WITH CAPE JOSEPH HENRY IN THE DISTANCE

CAPTAIN BARTLETT AT CAPE HECLA

up the trail north of us, and followed it to the second igloo. Here two Eskimos remained with me, to build an igloo, Marvin and Ryan taking their places with the sledges and returning with the others to bring up the previous day's advance loads. When they returned they reported the ice still in motion in our rear, and that they had reached the cache just in time to save it from being obliterated by a huge rafter.

While at this camp, the floe on which my igloos were built split in two, shattering the igloos, and the ice, evidently under severe pressure, rumbled and groaned continuously. The 8th was a fine day with some wind from the northwest, and the land hidden by water-smoke forming over the numerous cracks and narrow leads resulting from the movement of the ice.

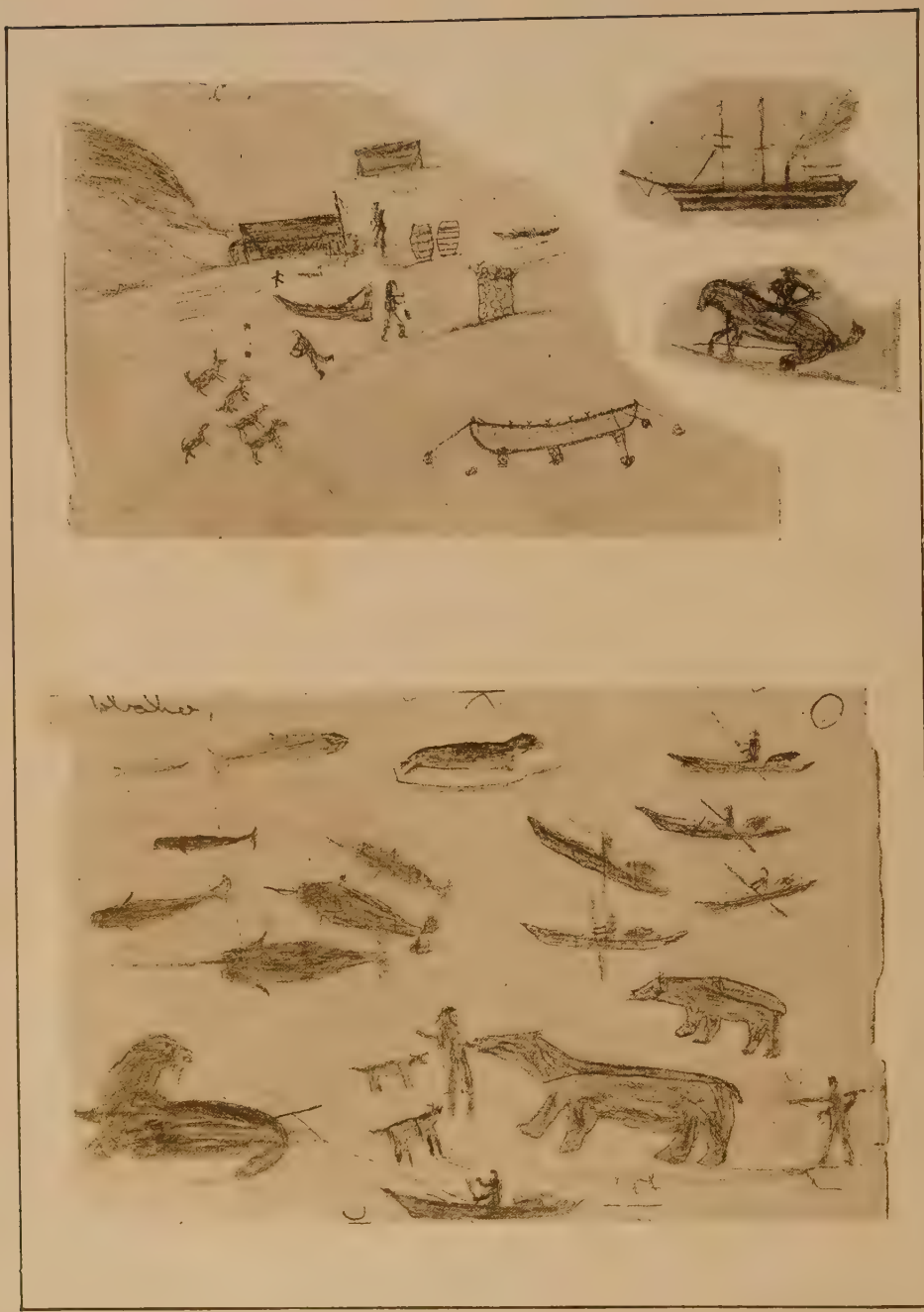
The going was comparatively good on this march, except where the movement of the ice had faulted the trail. Two more sledges were broken and held together just long enough to reach camp. At this camp again the floe on which my igloos were built cracked under the terrific pressure, and the igloos shook and trembled as if by an earthquake shock, so that some of the Eskimos rushed out in alarm. The cracking and uneasiness of the ice continued during our stay in this camp. The rapid increase of daylight was marked here by the insertion of an ice window in our igloo which enabled us to distinguish objects inside throughout the entire night. An early start was made on the 9th in spite of heavy northwest wind and disagreeable drift. A few hours later I met the captain returning with his party from the cache at the end of the first division, fixed by me at the end of the

6th march. He had left Henson the day before, and on the way back met the Doctor and Clark, so that a few moments' conversation with him put me in touch with conditions and the location of everyone ahead of me. He reported the ice in motion everywhere, the floe upon which my advance loads were placed yesterday drifted a mile or more to the southeast, and the trail disrupted for a long distance. I gave him detailed instructions and he disappeared in the rear of my party on his way to Hecla for additional loads. This was a fairly good march though we were steadily drifting eastward. I hoped that with the cessation of the spring tides and the continuance of the bitter cold the ice would become more stable.

On the 10th the ice was more quiet; there was little wind: the day was fine and the going comparatively good. I quote from my Journal: "Things are *too* favourable. I am oppressed with the fears of open water ahead."

On the 11th I overtook Clark and the Doctor at cache number one, and was able to simplify and assist the work of both in some details. The next two days were a continuance of the fine but bitterly cold weather. The Three-star brandy on my sledge was frozen continuously. On the 15th I overtook Henson and the Doctor with their parties camped together, Henson claiming to be stalled by the weather. I gave him explicit instructions and started him out. I then sent Marvin and his party back to Hecla for additional supplies in order to give Henson a start, and utilised my own and Clark's parties in bringing up supplies from cache number one, and in pushing loads ahead from this

DELAY CAMP AT THE "BIG LEAD"
84° 38′



ESKIMO DRAWINGS MADE AT STORM CAMP

camp. While at this camp the Captain came in, having been six marches from Hecla. The men sent out on Henson's trail reported that the going beyond here was the best yet.

I quote from my Journal:

March 17th.—A glorious day, clear as a crystal and the sun is shining nearly twelve hours. The land distinctly visible, but not as far away as I could wish. The Captain and his party pulled out early and Clark and his party soon after. I brought up the rear a little later with my party.

After working through about a mile of fearfully rough ice, we came out upon what looked as if it might be (and God knows I hoped it was) the comparatively unbroken homogeneous ice of the central Polar Sea. A beautiful sight, the level, slightly drifted snow plain stretching away apparently infinitely to the North.

March 18th.—Another glorious day but bitterly cold, the brandy remaining frozen and the petroleum white and viscid; my dogs very tired and unambitious. It is aggravating not to be travelling faster in such weather and going, and it is not pleasant to be at the rear attending to loose ends, but I have the consolation of knowing that my advance parties are, or ought to be, a good distance ahead, and that before long I shall be in my proper place at the very head of the line, breasting the air that comes direct from the pole uncontaminated by any form of life. At this camp one new sledge was made out of two broken ones.

And so the work went on, the parties going and

coming, myself in touch with and pushing those ahead of me and pulling those in the rear, so to speak, in a position where I could straighten out any little hitches and keep the distribution of the parties such as to minimise the work of igloo building, and prevent confusion rising when two or three parties got bunched together. It was brute hard work and bitter cold. The brandy continued frozen and oil viscid, but everyone was eager and cheerful. The Captain, Doctor, and Clark on the *qui vive* all the time, and the Eskimos hustling with their usual willingness. On the 22d, at my camp on a big floe selected for this purpose, cache number two was established. Although the work was not moving with the speed which I could have desired, it was moving with such apparent smoothness that I constantly feared some insurmountable obstacle was waiting for us just ahead, and yet I felt that it might be that twenty years of work, disappointment and sacrifice would perhaps be allowed to win. During the night of the 21st at this camp the wind came on fresh from the west, blowing with distinct fierceness all night and day of the 22d and causing pronounced changes in the ice. Our big floe cracked and rumbled frequently and the walls of our igloo were split but not so seriously as to be beyond repair. Wind shelters were constructed for the dogs and they were double rationed. Although a bitter day, the 22d was the first day since I left land that I was held up by the weather, and I could have travelled on this day had there been any necessity for it, but to have done so would only have piled my party up on top

of the Captain's, who was now one march ahead of me, and given us unnecessary and disagreeable labour and discomfort in building an additional igloo in the wind and driving snow. When we left this camp, I found, as I had expected, that the storm had caused pronounced changes in the ice. Some two miles from camp a newly formed lane of water a hundred yards or more wide gave us some trouble to negotiate, and at two other places enormous pressure leads had been formed across the Captain's trail. The northern ice in every instance had shifted to the eastward.

Several narrow leads that the Captain's party passed, and on which the intense cold had already formed young ice gave us no trouble. Our camp at the end of this march was located in a hollow between two enormous hummocks on a large old floe.

I quote from my Journal:

Though I fight against it continuously, I find it impossible under conditions like to-day not to indulge in some thoughts of *success* as I tramp along, and I get so impatient that I do not want to stop at the igloos but keep right on and on. At night I can hardly sleep waiting for the dogs to get rested sufficiently to start again. Then I think, what will be the effect if some insuperable obstacle, open water, absolutely impossible ice, or an enormous fall of snow knock me out now when everything looks so encouraging? Will it break my heart, or will it simply numb me into insensibility? and then I think, what's the odds, in two months at the longest the agony will be over, and I shall know one way or

the other, and then whichever way it turns out, before the leaves fall I shall be back on Eagle Island again, going over the well-known places with Jo and the children, and listening to the birds, the wind in the trees, and the sound of lapping waves (do such things really exist on this frozen planet?).

Four good marches were reeled off from cache number two in good weather. Ten years ago I would have called these marches fully fifteen miles each, now I hoped they were at least twelve. In the second march there was considerable young ice which I feared might give the Captain some trouble on his return march. A vigorous wind at any time would cause the big floes on either side of this ice to crumble it up like so much window glass and leave only an irregular rafter or two to show that it ever existed. At one of our camps the night was the most uncomfortable yet. We and everything in the igloo were thickly covered with our frozen breath, and it seemed impossible to make the stove give out heat enough to boil our tea. The thermometer which I carried with me to prevent breaking had a bubble jarred into it by my falling in rough ice and was stubborn to remedy. There was little doubt, however, that our temperature was in the minus sixties. Several leads in these marches gave us some trouble, causing considerable detours and the records of Henson and the Captain in their igloos showed that they had had the same trouble.

I quote from my Journal:

March 25th.—This morning I discarded the light deer-skin coat in which I had travelled thus far for an

old but dry one. The former was simply sodden while I had it on, froze solid as soon as I took it off and it had to be thawed out in the morning with the warmth of my hands. Last night was a little more comfortable than the previous one, but not much. I got the bubble out of the thermometer and when I took it outside the igloo it fell so rapidly from minus 25° F. (the temperature of our bed platform where it had been resting close to my head) that at first I feared it was broken. It finally stopped at minus 61½° F. During the march it has ranged from minus 55 and minus 53 to *minus* 50 *in the sun*, and yet to-day has been the most comfortable one for the past week (my Eskimos corroborate this). Am sorry now I did not put the thermometer in commission sooner. We must have had some record temperatures.

A dog abandoned by one of the parties ahead and which I picked up yesterday, fed last night and tied in the other igloo so the wind would not reach him, pricked up his hitherto dejected ears at my appearance and after he had eaten another piece of pemmican lay down and rolled on his back like any civilised dog. He is utterly useless, poor thing, but has worked faithfully, no doubt, and as I have pemmican to spare just now he shall not starve yet. To-day he has kept on in one of the teams and his hitherto hopeless eyes brighten, I fancy, when he looks at me.

Quite a bit of young ice in to-day's march and several magnificent old floes with hummocks on them like ranges of hills. The sun is rapidly creeping around to

complete the entire circle, and at noon I fancy there is a slight sensation of warmth in his rays.

To-day has been quite hazy or smoky like the days immediately after we left the land which I do not like, as this means cracks or leads in the ice. But the weather we are having is just the thing, cold and calm, to cement the ice firmer and firmer, and quickly render any new cracks or leads passable. I hope it may continue so till we get back to the land; the colder and the calmer the better. I want no wind or mild weather until we are back on board ship.

March 26th.—A glorious day, and a splendid march, over the finest going and then—bang up against it, as I have been fearing all along. I have been dreaming too much these last few days, for which there could be of course, but one result, a black eye to my hopes of speedy success.

Early in the morning heard the welcome sound of grinding ice and turning out found the lead, beside which we had camped, had narrowed enough to eliminate the unsafe ice. We were soon packed and over, following the Captain's new trail, which gradually swung westward until it cut Henson's trail beyond his igloo. (The thermometer had registered -60° F. during the night, and stood at -52° F. when I took it up.)

After striking Henson's trail we kept on over large old floes of hard surface interrupted by not particularly difficult pressure ridges, and after a good long march reached Henson's igloo.

His record said that he was here during the storm of the 22d and had left on the 23d. A postscript

undated said there was an igloo just ahead and a lead beyond. The Captain's record of the 25th said he was leaving about noon to join Henson.

I had noticed in coming up to the igloos a dark object on the northern edge of the floe, and now assumed it to be an empty tin, or cast off clothing on top of an igloo.

When my men came up we fed the dogs, put our gear inside, and began making tea, when Ahngmalokto said he could hear dogs up ahead of us. I turned the tea making over to him, and went out to investigate.

I soon met the Captain coming out to me, and found three parties banked up here, by a broad open lead extending east and west across our course, farther than we could see. I immediately started to investigate the lead and from a pinnacle it looked as if there might be a chance to cross during the night. The northern ice was slowly moving west.

I told Henson to have his men stand watch and watch, and if the chance came to notify everyone so that a quick crossing could be effected. I then went back to my igloo.

After my tea I sent a note to the Captain telling him if there was a chance to cross, to travel with Henson for two days and then return, and a note to Henson to get across the lead at the first possible moment and push on.

Early in the morning of the 27th I went up to see how things were going, and met the Captain coming to report that Henson had started to try and get across to the west, and he was about to follow.

When he got away I climbed a pinnacle to reconnoitre

and was not encouraged. The lead was evidently widening. Came down and sent a note to the Captain that if he could not get across to return with every one and I would send him and Clark and their men back for more supplies. I could not afford to feed all these teams and people here during what might be a several days' wait.

The Captain and Clark got away before noon with seven sledges, and I moved up beside the lead. At night the lead was still widening and the ice slowly moving west. Min. during night -66° F. temperature during day about -60°.

The northern ice continued slowly in motion to the west during the 28th, which was a fine day.

I sent Henson and an Eskimo west with a light sledge to trace the lead. They reported the lead widening in that direction and a branch swinging northwest and southwest.

Two Eskimos sent east reported the lead impracticable in that direction and a branch swinging off to southeast. The lead was slowly widening so that the young ice had no time to get firm.

Late in the evening, after a few preliminary cracks, the ice broke about us with a furious rending sound, and jarring of the igloo.

Going out I found that a crack some twelve feet wide had opened in our floe a short distance to the south, cutting us from the main floe. A good day though hazy. Movement of northern ice decreasing, and the lead skimming over. Another fine day followed. The movement of the ice had practically ceased, and the lead was skimmed over so as to cut

off the dense vapour that had been obscuring our view to the north.

The Eskimos claimed to see water to the north, but I could see nothing but mirage, and declined to believe in it until I had it at my feet.

Satisfactory observations with sextant and transit gave Lat. 84° 38′+ Longitude 74° W. approx. and Var. 107½° W. We were somewhat farther west than I intended owing to the constant tendency of Henson and his party to turn to the left in negotiating leads and areas of rough ice.

I did not sleep much during the night of the 30th (not but that I was comfortable enough physically) and we had an early tea.

A raw, cloudy, threatening morning with a breeze from S. S. W. true which I feared would develop into a gale. In the afternoon and evening it cleared and was fine again. I got my observations just in time.

The ice had ceased its motion entirely now, and in the afternoon of the 31st the young ice on the lead (now some two miles wide) was safe except a strip about 100 feet wide in the centre, with a narrow band of open water in its middle.

I sent Henson with one man and the long sledge to the east on the young ice, and he reported the main lead narrowing and branching, one branch running S. E. true. The band of young ice and the water crack continued on east.

In the afternoon I had the men cut a sledge road through the rubble ice, bordering the lead, to the young ice, as we might be able to get a start the next day.

Sunday, April 1st.—This was nearly a perfect day, not a speck or flaw in the blue sky anywhere, and the sun brilliant and warm (comparatively).

It was a shame to be wasting such weather in idleness, and yet it could not be helped, nor was it possible to be seriously downhearted in such sunshine. In the morning the centre of the lead had closed so that a man "walking wide" as the polar bear does, could cross it, but an easterly movement of the northern ice during the night had opened a place some 200 feet wide on the northern side of the lead which effectually barred crossing. The set of the current was still to the west. A light air from N. E., N. and N. W. during the day might I hoped shut the lead up by morning.

We continued drying our clothing in the sun and doing odd jobs to pass away time and keep from thinking. It was wearing to be held from one's work and object so many days, and yet there were many chances yet. It was still early in the season, dogs and men were in good condition, and I could not help believing that once across this lead (the "Hudson River?") which is undoubtedly the tidal crack between the land ice of Lincoln Sea and the central polar pack, we should have good going and little interruption from water.

I had two beacons made of empty pemmican tins and placed one on the summit of Observatory Pinnacle, and the other on a high pinnacle to the west.

I quote from my Journal:

April 2d.—Across the "Hudson River" at last, thank God, after a loss of seven days of fine weather.

Ryan came in about nine last evening with his three men Ahngodoblaho, "Teddy" and Itukashoo.

He brings a story of delay from open leads at the igloos where the Doctor turned back; again this side of cache number two, and in his last march here, which makes my men's faces very long. The Captain was also bothered by open water and was three days getting to the cache. Ryan met him just this side.

On the other hand he says from the "Dr.'s igloos" in to the land the ice has not moved, and that there was no wind in near the land on the 22d.

He brought very light loads. But it all helps, and Marvin and Clark must be close behind.

My impatience about the lead would not let me sleep, so at 2 A. M. I had tea ready and sent my two men to reconnoitre. They were gone a long time, and I made up my mind they could find no crossing, when they returned, and said they thought the ice would hold at a place a little west of where we had been watching it.

Turned everyone out, and sent all the sledges across with light loads on each and, when they returned hurried everything else on to them and went across with everyone except Ryan and two of his men (I took the other one with me), who started right back.

While the men were scouting I had written notes of instruction to Marvin, Clark, Captain, Doctor, and Ryan himself, which the last-named took back with him.

With everything over Henson packed his sledges and got away at 8 A. M. My men built an igloo,

double rationed their dogs, and I arranged their loads, and put what remained in a prominent cache on a hummock of the old floe on which we camped. A beautiful day but colder, and the going north appeared to be good. I hoped it was.

The point of view makes a great difference. From here the broad "Hudson River" looked much fairer than it did from the other side, and looking across its shining surface to the purple shadows under the opposite ice banks, a very strong imagination might even fancy a resemblance to its namesake.

FROM "BIG LEAD" TO 87° 6′ N. LAT.

CHAPTER VI

FROM THE "BIG LEAD" TO 87° 6′ N. LAT.

THE night of April 2d was fine until early morning when it clouded up, and when we got under way it was dark and threatening, with a biting wind right from the direction of the Pole, swinging later to the west. The ice was shrouded in the shadowless light peculiar to these conditions, making it almost impossible to see Henson's trail. I found that our camp floe was an island; a broad lane of young ice separating it from the other ice. After passing two or three more narrow lanes of young ice, we got beyond the most pronounced traces of the recent disturbance, and travelled over heavy old ice, with snow somewhat deeper and softer than south of the "Big Lead." There was no season's ice and recent pressure ridges were infrequent. We reached Henson's igloo where his record told what a hard march they had and how tired they were, etc., etc. The sun, now continuously above the horizon, shone for a bit as we camped.

Thick and blowing from the north all night, and the same when we got under way the 4th. The diffused light made it very difficult to follow the nearly wind-obliterated trail. Frequent snow squalls from the north and west added annoyance. At noon it began to lighten and when we reached Henson's igloo, the wind

had ceased and the sun was trying to shine. Some season's ice and two narrow leads of recent ice were crossed in this march. The rest of the way we had heavy old floes, some of them the blue hummock kind, on which the going was good, interrupted by old ruptures and belts of rubble ice over which the going was very bad. These places served as nets to catch all the snow blown off the level places, and there it lay soft and deep. It was going that would seriously discourage an ordinary party, but my little brown children of the ice, cheerfully tooled their sledges through it with the skill born of life-long experience and habit.

The wind and thick weather came on again during the night of the 4th and continued. We got under way at 3:30 A. M. and found following the trail very difficult in the diffused light, and possible only with constant attention and straining of the eyes. This was distinctly fatiguing, and added to the depressing effect of the weather, was a strain which I made up my mind to avoid as much as possible in future by not travelling in thick weather except when compelled to. The going for the first two hours was through a zone of rafters and rubble with deep snow; after that came old blue-topped floes (some of them more massive than I had ever seen) interrupted by old rafters.

In some places the floes were level, swept free of snow in large patches, and beautifully blue. One bit of season's ice and two or three narrow leads, or rather cracks, were crossed. I was not surprised at the end of six hours to come upon Henson in camp

with his party. "Too thick to travel," and all more or less worried at being so far away, the hard travelling, etc. I set my men building an igloo, and hoped the sun would clear away the thick weather as it had the day before, and give a chance to start soon. While building my igloo a crack opened with a loud noise nearly all round our place, greatly disturbing Sipsu's sensitive nerves. Later thick snow came on with the increasing wind. Through carelessness I frosted my entire left cheek during the march and this I anticipated would cause me some annoyance as it was in my heavy beard. After the igloo was built my men overhauled and repaired their sledges thoroughly. All night the wind and snow continued from the west, and during the night (probably with the turn of the tide) the cracks closed up with a good deal of noise, ending with two severe bumps as our floe came to a bearing all around.

In the morning another movement began. Henson's igloo which was a little nearer the rafter than mine, was shattered, and his men built another in the centre of the floe and moved there. The spring tides of the April full moon were running now, and with the wind would probably open the "Hudson River" again. Marvin, however, and I hoped Clark, should be well over by this time with their supplies, and out on the road. I hoped this storm would clear the condensation out of the air, and give us another spell of fine weather in which we might accomplish something.

The ten days' delay of Henson's party, and seven of mine, in fine weather, had been a terrible set-back.

Without that we should have been beyond Abruzzi's highest now. As it was I was two degrees ahead of four years ago, when I left Cape Hecla.

The wind and snow continued all night of the 6th and the forenoon of the 7th, then the sun broke through and showed that it was no longer snowing, though the wind continued unabated accompanied by a furious and blinding drift.

On this date Nansen reached his highest, and but for the accursed lead, I should now have been ahead of him. As it was I was behind him and stalled again. Came on thick again during the night and continued blowing and drifting without abatement. It seemed as if it *must* clear off some time, but as yet there were no signs of it.

The wind continued its infernal howling past the igloo and among the pinnacles of the rafter close by all night. I was so comfortable physically, however (barring my stumps which were always cold when I was not walking, and sometimes even then) that there was nothing to distract me from its hell-born music, or keep me from thinking of the unbearable delay. It seemed as if I had been here a month. The wind which had been a little south of true west swung more to the south, the drift was less dense, as if the bulk of the snow were packed, and I fancied there was less weight in the wind in the evening. I hoped to God it would clear soon. I was curious also to see if the continued blow had materially changed our position to the east. There had been no detectable disturbance in the ice since the morning of the 6th. This could be accounted for in two ways; one that the

ice was already jammed to the eastward, and the old floes too heavy (and with no young ice between) to permit any compacting or shutting up; the other that the central pack (detached from the land ice along the big lead) was moving eastward as one mass. I could not help thinking that in the latter case, the differences of wind pressure and water resistance of the different floes would cause more or less motion among them, or at least cause strains that would be more pronounced. It would be surprising if the "Hudson" was not wide open now, and I hoped Marvin and Clark were across it with their supplies, and the former near enough to overtake me in a march or two from here. If the "Hudson" was open and they the other side of it, it would necessitate a decided modification of my plans, for the season was too late now for me to wait for them to come up. I must push on with what I had here, and take the chances of good going, long marches, and the certainty of eating dog again before I got back to land.

April 10th was another miserable day. The wind not quite so violent, but still continuing with a heavy drift that made travelling out of the question.

Temporarily at least I had got past chafing at the delay and simply longed for the cessation of the infernal music, and to see the bright sun glinting on the ice-fields again, as a thin-blooded invalid in winter longs for the soft breath of summer.

I cheated as much of the time away as possible, planning what I would do when I got back, and then I ran against the black wall, unless I win *here*, all these

things fall through. Success is what will give them existence. Then I went over again what I should do in the various contingencies, if it ever cleared, but that did not take long. I knew what I should do in every contingency I could think of.

And always through the black shadow of impending failure showed the steady light of so many days nearer my island and its people.

I quote from my Journal:

Another day, the sixth of the interminable gale. Will it never end? The wind and drift continue with unabated violence. For some three hours to-day, I pushed, and butted, and at times almost crawled on hands and knees, back and forth across the small floe on which we are camped.

This partly for exercise, partly because I could no longer keep quiet, partly from a desire to determine with certainty, whether, if I were made of sterner stuff, I might not be travelling. I am perfectly satisfied now. *No* party could travel in this gale, not because of the cold, though that is not slight, but because of the physical impossibility. To face the gale would quickly wear out the strongest man living, even if it were possible to expose the face directly for more than an instant to the cutting drift. I am also satisfied that the effect of the storm will not be to make the travelling (if it ever clears) worse; or to obliterate our trail from the 'big lead' here.

All the new snow, and some of the old is being scoured off the floes and deposited in the pressure ridges, and the tracks of my sledges, dogs and men are

left in relief. Six years ago to-day I left Conger for the Greenland coast.

At last the unprecedented gale abated, or at any rate temporarily suspended, enough for me to get things moving.

After midnight the violence of the wind moderated, and in the morning the sun was shining, though a considerable drift was still running, and a heavy bank of drift lay all around the horizon.

Gradually this subsided, and I was able to get some meridian observations with the transit. The drift made the use of artificial horizon impracticable. These observations gave our latitude 85° 12′, and our longitude but slightly west of the ship at Sheridan.

I immediately started Henson off with two of his men, Panikpah and Pewahtoo, to push ahead, and at the same time sent off his other man Sipsu, and one of my men, Ahngodoblaho, to meet Marvin (if he was north of the "big lead"), and to bring up the supplies left in the small cache this side the lead if they did not meet him. As I anticipated after the previous day's study of the matter, the storm had improved the going. On the old floes where it had not scoured the snow off entirely, it had packed it harder, and the patches of rough ice, and the pressure ridges were now filled with snow hammered in until it would bear a mule. Our tracks were much more distinct than they were six days before. To the north of us there was a large floe stretching as far as could be seen.

It was a day of April weather, reminding me very much of the ice cap; blue sky with delicate "mare's

tail" clouds, then banks of fog, flurries of snow, and blue sky again, with a continuous light W. S. W. wind carrying a low drift along the surface. For several hours there was a fog bank, probably caused by open leads.

It was well that I had discounted the loss of my provisions at the lead. Soon after midnight, my two men returned reporting that they had lost the trail beyond the first igloo south of where we were, and had been stopped by open water and completely shattered ice extending as far as they could see from the highest pinnacles.

It was evident that I could no longer count in the slightest degree upon my supporting parties, and that whatever was to be done now, must be done with the party, the equipment, the supplies which I had with me. Unfortunately the party was larger than it need be (eight of us in all), and the supplies much smaller than I could have wished. I gave my men their supper and turned over for another nap while they obtained a few hours' sleep. I had no occasion to think or worry, I knew already what I should do in this contingency.

Early in the morning we started after abandoning everything which we did not absolutely need, and I bent every energy to setting a record pace. In the legacy of irretrievable damage which the storm had left us was one small codicil of good. Such snow as the wind had not torn from the face of the floes was beaten and banked hard, and the snow which had fallen had been hammered into the areas of rough ice and the shattered edges of the big floes, so that they gave us little trouble. North of Storm Camp we had no occasion for snowshoes or pickaxes.

The first march of ten hours, myself in the lead with the compass, sometimes on a dog-trot, the sledges following in Indian file with drivers running beside or behind, placed us thirty miles to the good; my Eskimos said forty.

At the end of the march I was a tired man. Had raised blisters on the bottom of both my feet, and soft as I was after the days in camp, was sore in every bone with the rapid pace, which was not less than three miles an hour. My Eskimos insisted it was nearer four.

The next day the wind was blowing a half gale from west southwest (true) with a great deal of drift. But we had no time to waste in camp, when possible to travel at all.

Four and one-half hours after starting, we came upon Henson camped beside a closed lead where he had been for some twenty hours. He and his men claimed, that it had closed just before I arrived. As I passed they hitched up and fell in behind my hurrying party. We travelled ten hours, then camped in very thick weather. During the march we traversed several large level old floes, which my Eskimos at once remarked, looked as if they did not move even in summer. We also crossed eleven leads during the march which however gave us no very serious trouble, a short detour one way or the other always giving us an opportunity to cross. Several berg-like pieces of ice discoloured with sand were noted during the march, my Eskimos saying that these looked as if we were near land. We travelled at a good pace again during this march, and I felt that we had covered thirty miles more. I hoped that it was more than this even.

When we started on the next march, it was clear and bright with light wind and drift, but at noon a dark bank swept over from the west and the wind increased. At the end of the march we camped beside an open lead some fifty feet wide, trending apparently northeast and southwest, but it was now so thick with the driving snow that it was not possible to determine this with certainty. Building our igloos at this camp was a disagreeable job in the violent wind and driving snow. Our pace during this march was not less than two and one-half miles per hour. Several narrow leads were crossed and after noon we travelled upon almost continuous one season ice.

At this camp our stay in camp was longer than usual owing to the continuance of the wind and snow. While here, six worn-out dogs were killed and fed to the others to save our small store of pemmican, and the skeleton condition of these dogs as shown when they were skinned, threw my men into a temporary panic, as they said that the entire pack might give out at any time and they wanted to turn back from here, but I told them I was not ready to turn back yet, and should not be until we had made at least five more marches to the north.

I quote from my Journal:

April 18th.—What contrasts this country affords. Yesterday hell, to-day comparative heaven, yet not such heaven as most would voluntarily choose. The wind died down during the night; this morning the position of the sun was fairly discernible. Started early and no serious trouble was experienced in crossing the lead

as I had expected. Very rough going at first through rafters and big drifts, then very decent for the remainder of the march.

This was the first entirely calm day since leaving the big lead. Clear except for cirro strata running east and west. We crossed much one season's ice, and some only a few days old. No old floes. Travelled ten hours. We must be close to Abruzzi's highest now.

During this march the dogs were much excited at one time by the scent of something to windward, and for three or four miles struck such a pace that I found it difficult to keep ahead of them even by running, so stepped one side and let them pass. At the time I thought it might possibly be a bear and was strongly tempted to go in pursuit. Later I was very glad that I did not, as the scent noticed by the dogs was undoubtedly from a seal in an open lead.

As we advanced the character of the ice improved, the floes became apparently larger and the rafters more infrequent, but the cracks and narrow leads increased and were nearly all active. These cracks were uniformly at right angles to our course, and the ice on the northern side was moving more rapidly eastward than that on the southern. Our pace was heart-breaking, particularly so as we were on scant rations.

As dogs gave out, unable to keep the pace, they were fed to the others. April 20th we came into a region of open leads, trending nearly north and south, and the ice motion became more pronounced. Hurrying

on between these leads a forced march was made. Then we slept a few hours, and starting again soon after midnight, pushed on till a little before noon of the 21st.

I should have liked to leave everything at this camp and push on for the one march with one empty sledge and one or two companions, but I did not dare to do this owing to the condition of the ice, and was glad as we advanced that I had not attempted it. I do not know if any of my Eskimos would have remained behind. In this last spurt we crossed fourteen cracks and narrow leads, which almost without exception, were in motion.

When my observations were taken and rapidly figured, they showed that we had reached 87° 6′ north latitude, and had at last beaten the record, for which I thanked God with as good a grace as possible, though I felt that the mere beating of the record was but an empty bauble compared with the splendid jewel on which I had set my heart for years, and for which, on this expedition, I had almost literally been straining my life out.

It is perhaps an interesting illustration of the uncertainty or complexity of human nature that my feelings at this time were anything but the feelings of exultation which it might be supposed that I should have. As a matter of fact, they were just the reverse, and my bitter disappointment combined perhaps with a certain degree of physical exhaustion from our killing pace on scant rations, gave me the deepest fit of the blues that I experienced during the entire expedition.

As can perhaps be imagined, I was more than anxious to keep on, but as I looked at the drawn faces of my comrades, at the skeleton figures of my few remaining dogs, at my nearly empty sledges, and remembered the drifting ice over which we had come and the unknown quantity of the "big lead" between us and the nearest land, I felt that I had cut the margin as narrow as could reasonably be expected. I told my men we should turn back from here.

My flags were flung out from the summit of the highest pinnacle near us, and a hundred feet or so beyond this I left a bottle containing a brief record and a piece of the silk flag which six years before I had carried around the northern end of Greenland.

Then we started to return to our last igloo, making no camp here.

FROM 87° 6′ TO THE GREENLAND COAST

CHAPTER VII

FROM 87° 6′ TO THE GREENLAND COAST

FROM the time we left Storm Camp on the upward march the wind had blown with greater or less force, but without interruption, from a little south of true west. Now as we retraced our steps it blew quartering in our faces, and accompanied by a fine drift of snow, cut like red-hot needles. We had already made a good day's march. Now we had to duplicate it without rest or food. When at last we stumbled into camp I was nearly blind from the effects of the cutting snow and wind, and completely done up with the long continued exertion. The interest and excitement of the advance were gone, the reaction had come, and my feet dragged like lead. As a matter of fact the return journey, after the eagerness and excitement of pushing ahead is over, is always the hardest part of the work. Of the fourteen cracks and narrow leads passed in this last forced march, all but three had changed pronouncedly in the few hours elapsing between our outward and return march, and two or three of them had moved to such an extent that we had some difficulty in picking up our trail on the southern side of them. Once inside the igloo and the oil stove started to make our tea, I rolled on the sleeping platform in agony, with my burning eyes, and let Ahngmalokto make the tea. For an hour or more

I feared that the cutting wind and snow, together with the strain upon my eyes in taking the observations, had given me an acute attack of snow-blindness. but I repeatedly buried my eyes in the freezing snow until the eyelids were numb, and after a time experienced sufficient relief, so that my utter weariness sent me to dreamless sleep. All regrets and disappointment had to yield temporarily to the imperious demand of the overworked body.

At this camp we took a full sleep, the last for several days, then hurried on at top speed. Deep in my heart I still had a lingering hope, fathered of course by the wish, that Marvin might have crossed the big lead before the storm came on, might have found Storm Camp, and left provisions there for us in accordance with my instructions left at the Storm Camp igloos. I was very anxious, therefore, to keep our outward trail, as far as Storm Camp, and now that the number of my dogs had been reduced, and some of my sledges discarded, I had spare men, and selecting two of the most experienced trailers among my Eskimos, I brought them alongside of me a few hundred yards in advance of the sledges. Thus we travelled, the three of us, with our eyes fixed upon the ice ahead, noting each faintest indication of the trail. Whenever the trail was faulted by the movement of the ice, we spread out in skirmish line and veered to the right, to the southwest, until we found it again. When we came to a crack or lead too wide to jump the sledges across, one of my Eskimos started to the right at once on the run, the other to the left, and the one first finding a practicable crossing signalled to the sledges in

the rear, in the usual Eskimo way, with waving arm, and the sledges made directly for him, we crossed the lead, picked up the trail on the southern side and went on. In this way the sledges lost no time, and we were able to keep as rapid a pace on the return as on the outward march, in spite of the movement of the ice and the necessity of keeping the trail. The three of us frequently ran for considerable distances, in order to keep a sufficient space between us and the sledges to enable us to reconnoitre the leads before the sledges came up. At the end of every march we stumbled into our old igloos utterly exhausted, with eyes aflame from the wind and driving snow, but thanking God that we did not have to put ourselves to the additional effort of building igloos.

As in our outward so in our return journey, scarcely for an hour did the wind cease its infernal rush and hiss and assault upon our faces. The last march into Storm Camp, which we reached God only knows how, was in the teeth of another blinding western blizzard with driving snow, through which none but an Eskimo, and a very good one at that, could have kept the trail for five minutes. Of course I found no provisions here. Our igloos were lined with frost crystals and nearly filled with drifting snow, but they were havens of refuge from the howling elements outside, which were more than appreciated. Ootah was the happiest man in the party. Just before reaching the igloos he had spied a small fragment of pemmican, a crumb from somebody's lunch dropped off the last sledge when we started north from Storm Camp, and he had pounced upon it and swallowed it just as

if he were an Eskimo dog. At Storm Camp we were held twenty-four hours by the continuance of the gale, the ice groaning and grinding in the familiar way, then resumed our march with the number of my dogs still further reduced. From here I set a "bee line" course for the nearest part of the Greenland coast. I alone of the party knew how far we had drifted and that our salvation now lay in the direction of the Greenland coast and its musk-oxen. My Eskimos thought we were coming down on the Grant Land coast which we had left, in fact, by some strange perversion of ideas, they were all fixed in their belief that we had been drifting westward. The only reason for this was that the ice on the northern side of the "big lead" had (so they said) before I joined them at the lead, been drifting pronouncedly westward.

When we reached the region where my two Eskimos had been stopped in their attempt to bring up the cache from the "big lead," I was not surprised at the expressions of amazement and almost horror with which they had returned to me. There was no open water now, but the chaos of shattered and upheaved ice which stretched away to the southward was indescribable. Through this our progress was naturally slow, but one grim and exhausting march, during which the pickaxes were constantly in use, carried us through.

In the third march from Storm Camp we crossed the scar of the "big lead." By scar I mean where the edges of the "big lead" had been driven together and had frozen fast. There was no mistaking it, and I foolishly allowed myself to be encouraged by the

thought that this obstacle was at last behind us and no longer to be feared. I should have known better than to feel this way, for I certainly had sufficient Arctic experience to know that one should never feel encouraged at anything nor ever expect anything in these regions except the worst. On the second march south of the scar we came upon a region of huge pressure ridges running in every direction. It was an ominous sign, and I was not surprised a few hours later when an Eskimo whom I had sent in advance to reconnoitre a trail for the sledges, signalled to me from the summit of a pinnacle "open water." When I climbed to his side there was our friend the "big lead," a broad band of black water, perhaps half a mile in width, lying across our path and reaching east and west farther than I could see. The lead here was thirty to forty miles farther south than where we had crossed it on the upward journey, but it was the same lead.

I turned east keeping an Eskimo scouting close to the lead in search of a practicable crossing while the sledges advanced parallel to the lead but at some distance from it, where the going was a little better.

Once he raised our hopes by signalling that he had found it: but when the sledges came up the place was impracticable. The next day we continued eastward and found a mixture of half-congealed rubble-ice, barely sufficient to support us, spanning the lead. The sledges were hurried on to this and we were within a few yards of firm ice on the south side, when our bridge failed us, and the ice under us began to go apart. It was a rapid and uncertain but finally successful

scramble to get back. We camped on a piece of big floe bounded on one side by the steadily widening lead, and on the other three by rafters of Alpine character. Here we remained, drifting steadily eastward, watching the lead slowly widen, as it had done on the upward march.

On the upward march, when we were delayed at the "big lead," in the brilliant, bitter, March days, and the ice on the distant northern side appeared to my eager eyes like the promised land, I had given it the name "The Hudson." Now as we lay in this dismal camp, watching the distant southern ice beyond which lay the world, all that was near and dear, and perhaps life itself, while on our side was only the wide-stretching ice and possibly a lingering death, there was but one appropriate name for its black waters—"the Styx."

Each day the number of my dogs dwindled and sledges were broken up to cook those of the animals that we ate ourselves. But here let me say that personally I have no objection whatever to dog, if only there is enough of it. Serious Arctic work quickly brings a man to consider quantity only in connection with the food question. One day leads formed entirely around the ice on which we were, making it an island of two or three miles' diameter.

Later, two Eskimo scouts whom I had sent east to reconnoitre the lead came hurrying back breathless, with the report that a few miles from camp there was a film of young ice extending clear across the lead—now something over two miles wide—which they thought might support us on snowshoes. No

time was lost in hurrying to the place when it was evident to us all that now was our chance or never, and I gave the word to put on snowshoes and make the attempt. I tied mine on more carefully than I had ever done before. I think every other man did the same, for we felt that a slip or stumble would be fatal. We had already tested the ice and knew it would not support us an instant without snowshoes.

When we started it was with Panikpah, lightest of of us all and most experienced, in the lead, the few remaining dogs attached to the long broad-runner sledge—the "Morris K. Jesup"—following him, and the rest of the party abreast in widely extended skirmish line, fifty to sixty feet between each two men, some distance behind the sledge. We crossed in silence, each man busy with his thoughts and intent upon his snowshoes. Frankly I do not care for more similar experiences. Once started, we could not stop, we could not lift our snowshoes. It was a matter of constantly and smoothly gliding one past the other with utmost care and evenness of pressure, and from every man as he slid a snowshoe forward, undulations went out in every direction through the thin film incrusting the black water. The sledge was preceded and followed by a broad swell. It was the first and only time in all my Arctic work that I felt doubtful as to the outcome, but when near the middle of the lead the toe of my rear kamik as I slid forward from it broke through twice in succession, I thought to myself "this is the finish," and when a little later there was a cry from someone in the line, the words sprang from me of themselves: "God help him, which one is

it?" but I dared not take my eyes from the steady, even gliding of my snowshoes, and the fascination of the glassy swell at the toes of them.

When we stepped upon the firm ice on the southern side of the lead, the sighs of relief from the two men nearest me in the line on either side were distinctly audible. I was more than glad myself. The cry I had heard had been from one of my men whose toe, like mine, had broken through the ice.

To give an illustration of the temperament of my Eskimos, the temperament which fits them so especially for Arctic work, the Chief Engineer of the *Roosevelt* was rather a heavy man, weighing something over 235 pounds; and as we stooped untying our snowshoes, one of my men, Ahngmalokto, turned sidewise to me and said, "Pearyaksoah, if the Chief had been with us, he would be down there now (indicating the depths below us), wouldn't he?" And Ahngmalokto was entirely right.

When we stood up from unfastening our snowshoes, and looked back for a moment before turning our faces southward, a narrow black ribbon cut the frail bridge on which we had crossed, in two. The lead was widening again and we had just made it.

The ice on the southern side of the lead was an awful mess, and we climbed to the top of the highest upheaved mass of it to see if we could make out any practicable route through. To and beyond the horizon extended such a hell of shattered ice as I had never seen before and hope never to see again, a conglomeration of fragments from the size of paving stones to literally and without exaggeration the dome

of the Capitol, all rounded by the terrific grinding they had received between the jaws of the "big lead" when its edges were together and shearing past each other. It did not seem as if anything not possessing wings could negotiate it, and I turned to my men to say a few encouraging words, but caught a glint in their eyes and a setting of the jaws, such as I had noticed before when they and I had been mixed up with a roaring herd of infuriated bull walrus or facing a wounded polar bear, and I shut my mouth and said nothing, for I knew words were not necessary.

During this march and the next and part of the next, we stumbled desperately southward through this frozen Hades, constantly falling and receiving numerous uncomfortable bruises. My uncushioned stumps seemed to catch it especially, and it is no exaggeration to say that at our first camp my jaws were actually aching from the viciousness with which I had repeatedly ground my teeth together during the march.

On the next march after we emerged from the southern edge of the zone of shattered ice, we made out the distant snow-clad summits of the Greenland mountains, and this improved the spirits of my men. One or two of them had said while waiting north of the lead, that they could see land clouds from one of the high pinnacles close by the lead, but I could make out nothing, and the other Eskimos were not sure of it. There could be no mistake in the matter now, and from here on the going improved. There were very few leads and these narrow and finally disappearing, there was no perceptible movement of the ice, and I recognised that we were now under the shelter of Cape

Morris Jesup, and no longer in danger of drifting past it and out into the East Greenland Sea.

In the next march after sighting the land, we came upon the trunk of a tree imbedded in a large floe. The part projecting from the ice was about nine or ten feet long, and the diameter at the ice level some ten or twelve inches. The wood was soft, apparently fir, and a small specimen was taken to permit of possible identification later on.

The land seemed bewitched and appeared every night to move away from us as far as we had advanced the day before. Slowly, however, its detail sharpened, and I headed directly for the rolling bit of shore at Cape Neumeyer, where I was positive we would find a few hare and hoped that we might find musk-oxen round in Mascart Inlet.

Finally, we dragged ourselves on to the ice-foot at Cape Neumeyer and inside of an hour had four hare, and very delicious they were, even though unassisted by such frills as salt or fire.

Just before reaching the land we crossed a fresh sledge trail running parallel with the land and heading east. For a moment I thought it might be a party looking for us, but an inspection of the trail showed at once that it meant trouble. There were three light dogs attached to a single sledge followed by four men walking slowly and with irregular steps. I thought it might be Marvin and his party, and as soon as we had had a few hours' sleep, I sent Ootah and Ahngodoblaho eastward on the trail to find out just what it did mean. The next day they returned with Clark and his three Eskimos. They, like us, had been

driven eastward, had come down upon the Greenland coast, and Clark's Eskimos like mine, possessed with the crazy idea that they had drifted westward and were coming down "the back side of Grant Land," as they expressed it, had insisted on turning east and were going directly away from the ship. My two men had found them a few miles east of our camp in what would have been their last camp. They were exhausted, had lived for a few days upon their spare skin boots, had with them three apologies for dogs which they were about to kill, and a little later would have come the finish. With new life given by the news that I was so near, they had summoned energy enough to walk to our camp, but they came in skull-faced and wavering in gait. Fortunately I could give them something to eat, as more hare had been killed since the two men went out. I had also sent two men, with an exhausted dog for rations, round into Mascart Inlet to look for musk-oxen, and while awaiting their return, I climbed to the highest point in the neighbourhood of the Cape, after sending out two other Eskimos for hare, where I could examine the going as far as Britannia and Beaumont Islands. I was very thankful to see that the edge of the bay ice was farther off than in 1900, and that the surface across the bays was smooth and level. I knew that it was likely to be more or less soft, but we had our snowshoes with us, and it is surprising what distance men with a little dogged sand in them can cover, even though half-starved and almost exhausted, when it is simply a matter of throwing one's weight forward a little and sliding one snowshoe past the other, until the last

minute of endurance is reached. My Mascart Inlet men came back unsuccessful, but the two hare-hunters brought in six, and this made things look somewhat brighter. As can readily be understood, however, the addition of four starving men to my party of eight half-famished ones in no way lightened my responsibilities. One thing was in my favour. The sledge journey along this coast in 1900 had shown me the places where the musk-oxen which must be our salvation would most likely be found, and leaving Cape Neumeyer, I led the trail past the end of Ellison Island, and thence through the channel between Britannia Island and Nares Land, in order to examine the coast from Nares Land to Cape May.

ALONG THE GREENLAND COAST TO THE "ROOSEVELT"

CHAPTER VIII

ALONG THE GREENLAND COAST TO THE ROOSEVELT

WEARILY we started westward to regain the *Roosevelt* and I kept an Eskimo constantly scouting the shore abreast of our line of march, looking for hare, but musk-oxen were to be our salvation and instead of setting an air-line course for the north end of Britannia Island on the route which I had followed in 1900, I determined to go straight for the north end of Ellison Island and thence round the southern end of Britannia Island through the passage between it and the mainland, and from there along the coast to Cape May and Cape Bryant, as I felt satisfied that on Nares Land and in the neighbourhood of Cape May we should find musk-oxen.

Our first camp was just off the precipitous black northern point of Ellison Island. Clark and Pooblah of his party did not come in till three hours after the rest of us. They could just barely crawl along. When we left camp I started them off as soon as they had their tea, they travelled so slowly. Fine weather, clear and calm, and we headed for the south end of Britannia.

Arriving at the point, which is low, I sent Panikpah across overland to look for hare. Soon after rounding the point and heading for Cape May we heard one shot. We travelled just as long as we possibly could,

everyone crawling along and Clark and Pooblah out of sight in the rear. The snow was about three feet deep; impracticable for a party without snowshoes, but affording good snowshoeing for a party with snowshoes and in good condition. For us it was heavy work. We camped on the ice at the intersection of a line between Victoria Inlet and Beaumont Island, and our course. Just before stopping I heard another shot from Panikpah. We had killed a dog for supper and were cutting it up when Ootah, who was carefully examining the land with the glass, yelled—"*Oomingmuksue!*" (Musk-oxen.) The cry electrified us all. I jumped out of the tent and found him looking at the Nares Land shore, seized the glass, and made out seven black spots on top of the shore bluff apparently right over the ice-foot.

I grabbed my mittens, tied on my snowshoes, told one man to get my carbine and cartridges, and the others to hitch the dogs to the empty sledge, and started off as I was, in my blanket shirt, having thrown off my *kooletah* (deerskin coat) while working over the cooker in the tent making tea.

I was as foolish as the others, and only when some distance from the tent and I realised that I was running, did I come to my senses.

It was too late to go back for my *kooletah* and the oil-stove cooker, but I did call a halt on the pace which in our excitement we were making.

The musk-oxen were not less than six miles away and we, weak and footsore, on top of a day's trying march, were running in our eagerness. Yet every once in a while I found myself unconsciously hurrying.

There were nine of us, Henson, myself and seven Eskimos. Clark and Pooblah and Panikpah had not reached camp when we started. Less than half-way over Henson dropped out and went back. I should have been glad to, but the musk-oxen meant too much to us. I felt the safety of the party resting on me, we had scant cartridges, could not afford to waste one, and I could not trust my excited men.

When within a couple of miles of the animals I began to worry. We were in plain sight of them and it seemed as if our snowshoes made a noise like thunder. Then I feared the few things of hair and bone which we called dogs would not have strength to round up our quarry.

When within a mile I put two Eskimos in advance with two dogs and followed close behind with my carbine.

When the gray dog saw the musk-oxen and was loosened, my fear came on again; had he strength enough to overtake them and then to dodge their horns?

The shore here was a steep bank like a railway fill, with a slope of about 30 degrees and three hundred feet or more in height. The animals were just a little back of the crest of the bank.

Like a thin shadow the gray dog went straight up the slope, the little black bitch following, and I saw the musk-oxen start to run, then round-up together. Then as the crest of the slope hid them from me, I saw the body of the poor bitch go into the air from the horns of the bull. Poor thing, she had been very faithful but her courage was greater than her strength, and the sharp horns had been too quick for her.

Should I be in time, or would the bull send the gray dog after the bitch, and then put miles of snow and rocks between us and his shaggy harem before they stopped?

I went up the slope as rapidly as possible but there was no hurry in me, my heart was pounding till the crest of the slope above me danced like the Northern Lights, and mouth and nostrils together could not feed air to me half fast enough. The two Eskimos who had the dogs were just ahead of me, Ahngmalokto beside me, and the other four lying on the ice-foot getting their breath. Mounting the crest I saw the musk-oxen in the usual stellar group of shaggy forms, white horns and gleaming eyes; the body of the bitch lying a short distance away, and the gray dog worrying the bull and dodging his vicious charges. Poor beggar, his weak legs bent beneath him, he stumbled repeatedly in trying to avoid the charges of the bull, and the heaving of his gaunt sides was painful to see, but the blood lust shone in his eyes, the wolf heart of his fathers kept him to his work, and every time the bull swung back to the herd, he returned to the attack.

"Hold them for a moment or two longer, brave gray, till I get my breath, then both of us will eat our fill."

I kicked off my snow-shoes and sat down upon them for a moment to pull myself together. In that moment there passed before me all the weary days since we went on scant rations; the grim daily grind; the dismal waiting at the Styx for a chance to regain the world; the heart-breaking work through the shattered ice; the infernal groaning and crashing of the floes;

A SAMPLE OF THE ARCTIC PACK

AS THEY ROUNDED UP

AFTER THE KILLING

THE HERD OF MUSK-OXEN, NARES LAND

the ever-present nightmare of more open water; the incessant gnawing under the belt; the bruised and aching feet; the burning eyes and face; the growing weakness; the tantalising mouthfuls of hare since we reached the land, and always this hope and picture before me, waking or sleeping—a herd of musk-oxen that should once more permit us to eat our fill. Here it was, now to business. I dropped my mittens, threw a cartridge into the barrel of my carbine, and advanced toward the herd. Faithful Ahngmalokto cried out—"Don't go so near, Peary," but this puny herd of musk-oxen was a trifle compared with the lead whose black embrace we had all faced, and I stepped between the gray dog and the bull. Crack! a tiny tuft of hair flew out from just back of the bull's fore-shoulder and he had something beside the gray dog to think of, though he did not go down. My bullet had missed his heart and gone through his lungs. Crack! the other bull made a jump forward, stopped, staggered a step or two backward, then lurched over on his side. My aim was better. Crack! Crack! the two old cows followed suit. Crack! the younger cow went the same way. The two yearlings were standing side by side close together, rigid with fright. Two or three steps to one side brought their fore shoulders in line; crack! the one bullet went through both their hearts and "pinged" on a rock beyond, as one fell on the other. I was one cartridge to the good and this I gave to the big bull as an act of mercy to put him out of his misery, standing there with braced feet, and blood-clogged nostrils, struggling for breath. I could not help thinking, as he went down, that it was a

shame to enter their quiet lives in this murderous way. But their lives had been peaceful and their end was quick, while we had walked through the outskirts of hell, and had been dying by inches, and anyway what would it matter to any of us a hundred years from now—their bones bleaching here on these Arctic slopes, mine—where?

I had been through this same thing eleven years before, but such experiences do not increase a man's elasticity. I threw myself down on the body of the bull as being less cold and hard than the snow, and heard the shouts of my Eskimos as they rushed at the carcasses; then the clicking of the knives and smacking of lips. Then the cold compelled me to pull myself together. Wet with perspiration next the skin and coated with frost outside, I knew the unpleasant hours before me and eating a few mouthfuls of raw meat, hastened to roll myself in one of the skins in the effort to get warm. It was no use. Wet as I was and weak and tired, the green skin seemed to be no protection against the biting wind, and for the next twelve hours I shivered and ached in my blanket shirt while the Eskimos and dogs ate till they were near bursting.

Then the tent, the little remaining camp gear, and the remainder of the party were brought up. Perhaps an hour before they arrived the wind came sweeping across the land with still greater force, increasing my discomfort, and I was more than glad to be able to crawl into the tent, where the night (owing to the wind), seemed the coldest of the entire trip.

This herd of musk-oxen comprised one large bull, one smaller bull with slightly deformed horns, two

adult cows, one with a calf a few days old; the other ready to calve in a day or two, one small cow, and two yearlings, one male and one female.

All the animals were very thin, looking almost like skeletons when their skins were removed, but their paunches were full, and their coats in good condition, not at all ragged as were those of the Independence Bay musk-oxen at the same time of the year in 1892 and 1895. The animals were also smaller and the patch on the back perceptibly whiter than the Grant Land musk-oxen.

The tent was pitched as soon as it came up, then a circular wind-guard was built of snow blocks, the meat and bones dragged close to it, the skins spread inside, a tiny fire started with some willow twigs gathered in the vicinity, and helped out by pieces of a sledge, then my Eskimos sat themselves round and with occasional brief winks of sleep ate continuously for nearly two days and nights. I did my share too, and at the end of the time the pile of cleaned bones about the shelter was almost beyond belief. When I use the word cleaned I use it in its fullest sense. When a hungry Eskimo leaves a bone a fly could not find a mouthful about it. The meat has been gnawed off, the periosteum stripped off with the teeth like the bark from a twig, the bone split, the marrow removed, and the cavity sucked and licked till it is dry.

Our first march from the musk-oxen carried us abreast of Stephenson Island and was a particularly dragging one. The debilitating effect of our very generous diet of meat, much of which was eaten raw, did not show itself so much while we were

quiescent in camp, but was very pronounced when we undertook to travel. I imagined at least that I felt weaker than at any time during the return, but my head was much more active, and I cheated the time away as I tramped mechanically in an air-line toward Cape May setting the trail for the rest of the party to follow, by plans for my western trip to be undertaken after we got back to the *Roosevelt*, and even went beyond the bounds of the present expedition and lifted myself out of the weary drag of our present surroundings by thoughts of home matters.

The next march brought us to Cape May, where we found numbers of hare tracks but did not secure any of the animals. A few willow twigs obtained here enabled us to cook some of the pieces of remaining meat.

I had hoped on the next march to reach Cape Bryant and so be in a position to scout the neighbouring country for the musk-oxen which I felt sure we should find in the region from Cape Bryant to Repulse Harbour. Our strength, however, was not equal to the entire width of Sherard Osborn and St. George's fiords at one pull, and we camped on the ice some four or five miles east of Cape Bryant. At this camp we finished the last of the musk-ox meat. Feeling sure that we should find musk-oxen in the rolling country from Cape Bryant westward I had made no attempt to restrain my men, and both during the march and while in camp they were eating continuously when not asleep. From this camp the entire shore from Cape Bryant into St. George's Fiord was very carefully examined with the spy glass for musk-oxen or their tracks, but without success.

In the next march we proceeded to Cape Bryant where we came upon sledge-tracks several days old coming in from the north. An examination of these tracks developed the fact that there were two sledges and that the party with them had proceeded to a considerable eminence south and east of Cape Bryant evidently for the purpose of reconnoitring and then having obtained their bearings had taken the ice-foot around Cape Bryant and proceeded southwestward along the coast. I felt there could be no doubt but that this was Marvin's party, but there were no indications in the trail to show that that they were in serious straits.

This general scattering of my supporting parties, however, gave me a great deal of uneasiness as to Ryan and his party, and whether they had reached some of the other parties before the storm came on. The parties of the Captain and the Doctor being nearer land than the others, would, I felt sure, have been more out of the sweep of the drift than the others, and would probably have no serious difficulty in regaining the Grant Land coast.

At Cape Bryant I started two Eskimos with carbine and cartridges overland to travel about parallel with the shore and a few miles from it, in order to detect any traces of musk-oxen in the region. They had instructions to return to the shore a little east of Hand Bay at a place which I designated as being where we would camp for the night. Following the ice-foot we passed the cache of musk-ox meat which my supporting party Ootah and Pooblah, returning from Britannia Island in the spring of 1900, had obtained and left for me.

The two hunters joined us at the place designated for camp, and reported seeing no recent traces of musk-oxen. They had seen two hare but these were too wild for them to obtain a shot. So sure did I feel that there must be musk-oxen somewhere in the region about Hand and Frankford Bays that after we had had our tea I started two other men off with rifles, cartridges, matches, and a little oil, and an empty oil-tin for melting water, to work round the heads of these bays and join us at a place just east of the Black Horn cliffs some time during our stay there at the end of the next march. This gave them about twenty-four hours. Our stay at this camp and our march from here to the eastern end of the Black Horn cliffs was rendered disagreeable by a bitter and penetrating gale from the west accompanied by snow. The men rejoined us at this camp having been entirely unsuccessful, and feeling much disheartened that they had not even seen traces of musk-oxen, so we all went back to our diet of dog. I could not understand the present absence of musk-oxen in this region as it is a very considerable area connecting with the rolling country in the neighbourhood of St. George's and Sherard Osborn fiords, and the seven musk-oxen which we killed here in 1900 certainly could not have been the only animals in the locality. The only possible explanation seemed to be that the animals might just at this time be way in at the heads of the fiords.

From a point of vantage well up the bluffs there was no indication of open water in front of the Black Horn cliffs as there had been both going and coming in 1900, and on leaving this camp we negotiated this difficult

and treacherous part of the journey along the northwest coast of Greenland, without serious difficulty. We found no water, the pack ice in front of the cliffs was fairly decent, and the ice-foot extending up to the cliffs on both sides was passable.

Two men sent overland back of the cliffs from the camp to the east, rejoined us on the west side of the cliffs. They had secured one hare which they ate in accordance with my instructions. We saw where they had killed two ptarmigan near the ice-foot and had eaten them raw all except the feathers, not even throwing away the feet or intestines. When they rejoined us Ootah was still carrying and greedily sucking the well-cleaned skin of the hare. Our camp at the end of this march was at Repulse Harbour. All the way from the western end of the cliffs to the harbour we faced a strong and bitter wind and drift. We were now where Beaumont wrote and left his magnificent record of human endurance and courage ending with "God help us." We were not as bad off as he and his party. We could all of us walk yet and I believed would all be able to walk to the ship, but it was essential that we get across the channel at once. We were getting weaker every day.

From the bluffs back of our camp after we had had our tea we could make out the *Roosevelt* lying at Sheridan, and my men were very much encouraged at the sight. It was a gratifying sight to me as well, for while I had not allowed myself to worry or lose sleep thinking about what might happen to the ship during our absence, I had of course, been fully aware that the storm which sent us so far to the eastward, might

have caused such motion in the ice at Sheridan as to heave the *Roosevelt* up high and dry on the ice-foot, and in our present condition the idea of tramping all those weary miles which I knew so well between Cape Sheridan and our cache at Bache Peninsula did not appear at all attractive. As far as we could make out with the glasses, however, the ship appeared to be just as we left her.

At this camp we cached everything but instruments and records to be brought in later, and headed across Robeson Channel for a point a little north of Cape Union, the only direction in which our reconnaissance with the glass from the top of the cliffs showed the ice to be practicable. We passed a blinding day at our camp under the lee of a big ice hummock in the Channel, several miles off the Grant Land coast. Everyone was completely used up with the unwonted exertion of stumbling over the rough ice after our recent marches upon the nearly dead level snow surface along the Greenland coast. Clark did not come in until very late. Pooblah, the lame Eskimo, did not come in at all. I was partially snow-blind. I had hoped after a few hours' sleep and rest here to push right on to the ship, but what with hunger and fatigue no one seemed able to sleep, and finally I told the men they could kill another dog. They hesitated at first saying they thought that we and the three remaining dogs would be able to walk to the ship without anything more to eat, but finally their hunger became too great and another poor crawling skeleton was killed and devoured. After the feed Ootah and another suggested going in to the ship to send someone out with food

for us but I vetoed the idea at once. I had always hitherto been able to get back from my trips without assistance, and intended to do so now.

Three hours of the next march put us on the ice-foot north of Cape Union and as we stepped upon it Ootah exclaimed "*Tigerahshua keesha, koyonni!*" (freely translated, "We have arrived at last, thank God!") Ahngodoblaho who was very lame remained behind in the camp, and Clark, who was making rather heavy weather of it, fell rapidly behind from the very first, but I told him to work along as best he could and take it easy, that as soon as I reached the ship I should send someone back to him with something to eat. I think I never shall forget the march from there to the *Roosevelt*. At risk of being regarded as imaginative I may say that it actually seemed to us as if we had arrived in God's country once more. It was a perfect night, clear and calm, the sunlight softly brilliant and the rich warm colours of the cliffs offering to our eyes a very decided contrast to the savage pinnacles of the sea ice and the snow-covered Greenland coast.

From where we landed the hard level ice-foot presented the best of walking, and we made good time to Cape Rawson. As we rounded it the slender spars of the *Roosevelt* looked very, very beautiful in the yellow midnight May sunlight.

Long before we reached the ship some of the Eskimos in the shore settlement spied us, I saw them scurrying across the ice-foot to the ship, and a few moments later several figures came out from the ship to meet us.

Arrived on board I immediately sent two Eskimos and teams back with food and stimulants to bring in

the three stragglers. I learned that Marvin and Ryan and some Eskimos had left for the Greenland coast in search of Clark, and that Captain Bartlett and Dr. Wolf were still pegging away at the work north of Hecla. I sent a messenger to recall Marvin, and another with a letter to Hecla to reach Captain Bartlett as soon as he arrived.

Then to my room where I quickly ripped my rank fur clothing from myself, and threw it out on the quarter-deck; then to my bath. After that, my dinner, a real dinner with real food such as civilised men eat; and then to my blankets and to sleep, unmindful of the morrow.

I quote from my Journal of the next day:

What a delicious thing rest is. With Jo's picture on the wall above my head, with my face buried in Ahnighito's pillow of Eagle Island fir needles, and its exquisitely delicious fragrance in my nostrils, I for the moment echo from the bottom of my heart Ootah's remark, "I have got back again, thank God!" Yet I know that a little later I shall feel that I might have done more and yet got back, and yet again still deeper down I know that we went to the very limit and that had we not got across the "big lead," when we did, we should not have returned.

Since reaching the ship I have had an aversion to pencil and paper, and have only cared to lie and think and plan. To think after all the preparation, the experience, the effort, the strain, the chances taken, and the wearing of myself and party to the last inch, what a little journey it is on the map and how far short

of my hopes it fell. To think that I have failed once more; that I shall never have a chance to win again. Then to put this useless repining aside, and plan for my western trip, and when I have done my duty by this, to plan for mine and Eagle Island.

WESTWARD OVER THE GLACIAL FRINGE OF GRANT LAND

CHAPTER IX

WESTWARD OVER THE GLACIAL FRINGE OF GRANT LAND

THE weather for the week following our return to the ship was of the most disagreeable character, beginning within twenty-four hours of our arrival, with a violent southerly gale which swept up the channel with great fury, and was followed by continuous thick weather, with a pronounced rise in temperature, frequent winds and snow. I congratulated myself every day that we got in just in time. The gale combined with the prolonged thick weather and the invariable drop in the physical barometer accompanying such rises of temperature, might in our condition have proved the last straw.

I called my Eskimos together and told them they had done good work, and now they could rest till the ship started for home, and could either stay about the ship, or go in to Lake Hazen, or to Fort Conger with their families.

For myself and the others there was still work of value to be accomplished in the weeks remaining before the *Roosevelt* would be free, and the programme of this work shaped itself.

Captain Bartlett would take lines of soundings across Robeson Channel, Marvin would run a line of soundings as far north from Hecla as practicable. The Doctor would utilise the time collecting specimens

and in making a trip to Conger and I would go west and endeavour to fill in the unknown gap in the Grant Land Coast, between Aldrich's and Sverdrup's "farthest." There were just dogs enough for this programme. Forty odd out of 120 had survived the spring campaign.

The change to the ship was so great after our months of roughing it, that I found it impossible to sleep more than a few hours at a time, and I had some trouble in controlling my appetite, but compromised by eating frequently and lightly.

My feet and legs swelled in a way that might have troubled a novice, but having been through it all before, I did not give myself any worry. Henson, and particularly Clark, were a good deal disturbed by theirs.

The preparation for the western trip gave me little trouble. I had worked out the complete list of supplies, equipment, etc., while tramping mechanically along the Greenland coast, and had jotted the items down while in camp, so now I had simply to give my instructions for such and such things to be made and assembled.

I left the *Roosevelt* about noon of June 2d with Marvin, Murphy the 'Bo'sun,' Koolootingwah, Egingwah, Ooblooyah, Tungwee, "Teddy," and Koodlooktoo, with six sledges and thirty-nine dogs. The weather was thick, warm and oppressive, and we were four and one-half hours working through soft snow, four to six inches deep, to Williams Island in Black Cliffs Bay. Here the Primus stoves, which I took on this trip as an experiment, refused to burn, and I sent Koodlooktoo back to the ship for others.

EGINGWAH AND THE MORRIS K. JESUP SLEDGE

MY ENTIRE WESTERN PARTY

ON THE ROAD TO CAPE COLUMBIA

THE TWIN PEAKS AT CAPE COLUMBIA, WITH THE MORRIS K. JESUP SLEDGE IN THE FOREGROUND

My new tent was only partially dry from its recent waterproofing, and was still sticky and ill smelling, and soiled hands and clothing, and everything that came in contact with it. I was stiff, sore, short of wind and my feet and legs swollen. Altogether it was rather a disagreeable "first night."

Koodlooktoo returned about 3 o'clock in the morning and we got away soon after. During our stay at this camp it was cloudy and foggy but this gradually cleared away as we marched and the sun got higher. Near Cape Creswell we met the Captain and I took one of his men and his best dogs.

He told me he was intending to go back out on the trail again, if he had not received my letter. After a short stop, he continued on to the ship, and I kept on my way for six and one-half hours through soft snow, one foot to two feet thick, to the ice-foot west of View Point. I intentionally made this a short march in order to get round to night marches. A brilliant day and evening.

We left this camp soon after midnight and reached Cape Hecla in six and one-half hours across Fielden Peninsula. The snow was hard at first, then very deep. A brilliant night. This made seventeen and one-half marching hours from Cape Sheridan to Cape Hecla.

I quote from my Journal:

Point Moss, June 5th.—What with overhauling the sounding apparatus, seeing that Marvin's outfit and supplies were complete, writing his instructions, selecting the things to go back to the ship from the cache at

Hecla, and those to take with me to supplement the Point Moss cache, sending instructions to the Captain, and invoicing and putting in order what was to remain at Hecla, I got but an hour's sleep there.

Marvin got away about 10:30 P. M., the two boys, Koodlooktoo and Itookashoo, going with him to take part of my loads out on to the level bay-ice west of Hecla.

When they returned I fitted them out with their loads for the ship, moved everything from the ice-foot well up the rock talus of the Cape, started them off and then got away with my party about an hour after midnight. Finest of weather all the time, clear and calm. There is more snow now than in March. It is firm enough to support the dogs, but the sledges sink much of the time, and a man needs snow shoes continually.

Three months to a day since I left Hecla the last time. It seems an age. Twenty years ago to-day I crossed the Arctic Circle for the first time.

We came on to Point Moss in five and one-half hours. The entire depth of Clements Markham Inlet visible. Distinctive names for the prominent mountains lying east and west south of the Inlet, would be Streaked, Camel, Saddle, Twin.

Here at Point Moss I have had eight hours' good sleep, and for the first time in a long time have leisure after breakfast to let my breakfast settle a little before hurrying off. With no vital necessity for hurry, and with nothing to look out for but my own small party, this is very agreeable. I shall finally arrange my loads here, and when we make our next camp beyond

LIVE BULL MUSK-OX AT CLOSE QUARTERS—CAPE COLUMBIA

MUSK-OX AT CAPE COLUMBIA

The same animal as shown in preceding picture, in death struggles, showing the massiveness of the head and horns

here, I hope to feel that I am really straightened out for my trip.

Our next camp west of Point Moss was off Challenger Point. The march was made in fine weather and we encountered for the first time, what later became a constant and striking feature of the glacial fringe, the long, prairie-like swells of its surface. My wind was improving, the swelling in my legs going down and I felt that I was getting in shape again. As we came along, we kept a sharp look-out on the shore with the glasses for musk-oxen, but did not see any. Just before turning in, a dark spot under Columbia ahead of us had every appearance of being a musk-ox asleep. The snow at this camp was three feet deep.

We left the camp off Challenger Point at ten at night and headed straight for the point of Cape Columbia, studying the shore very carefully with the glasses. At last our dark object of the day before was located again, a musk-ox feeding on a little plateau, and I went away at once with Koolootingwah and two dogs and secured the animal with one shot, after taking a number of photos at short range.

From the elevation where he was, open water could be seen extending all along the edge of the ice-foot. The swells which we traversed coming from Point Moss, showed up beautifully from here as parallel swells following the main contour of the shore. When the two men came up with the sledges I found that they had utilised their time while waiting, in locating four more musk-oxen farther inland.

Examined from our elevation with the glass, we saw that there were six. We went away after these,

and I secured five (one bull, two cows, one two-year-old heifer, and a two-year-old bull) with five shots. One bull had separated from the rest before we arrived, and I did not go after him.

These cows had whiter backs than the bulls, and a pronounced white spot between the horns. We skinned the animals, cut them up, fed the dogs on the refuse, and brought the meat and skins out to where I had killed the single bull. Then we had a grand feed. Numerous hare, sandpipers, snow-buntings, and blue-bottle flies, also several caterpillars were seen here. We camped on the bare dry gravel near the musk-ox and found it a great relief from the blinding glare of the ice. Plenty of water nearby.

Again I quote from my Journal:

Cape Nares, June 8th.—To-day has seen the accomplishment of what I planned last fall, almost as soon as the *Roosevelt* reached Cape Sheridan: the building of a cairn, the display of the Stars and Stripes and the placing of my record and a piece of the flag, on the summit of Cape Columbia, the northern extremity of North America.

Caching the meat and getting the musk-ox skins stretched to dry in the sun took some time, and we did not get under way till 10:30 P. M. of the 7th, the fine weather continuing, though a fresh breeze from the west, heavy clouds over the land to the southwest and a bank of clouds to the north threatened a change.

At 12:30 this morning, I stopped the sledges at the foot of the northern twin peak of Columbia, and began the ascent with two Eskimos, leaving one to look after the dogs.

The peak is a steep conical pile of loose stones, and though only 1,800 feet high, it took us two hours to make the ascent. I am very much below par, even more than I thought, no wind and no strength. Obliged to stop every little way and rest. Arrived at the top we built a cairn about five feet high and four to five feet in diameter, with an ash pole in the centre, hoisted my flag, took some photos, placed a record and piece of the flag in a tin inside the cairn, then made the descent down a steep snow bank, plunging rapidly and making fast time, though at the expense of my stumps.

The weather was now growing more threatening. and two or three times banks of fog had momentarily enveloped us.

We started west again and came on to Cape Nares where we camped on a patch of bare gravel near two conical mounds (similar to those on the ice-cap of Greenland) a few hundred yards out from the base of the cliffs. We found abundant water close by. The wind was now increasing, the sky entirely overcast and there was every indication of a storm.

Before midnight the wind was blowing, the snow driving in horizontal lines against the tent, which was flapping and complaining loudly.

This has continued ever since but appears to be moderating now.

About 3 A. M. of the 9th the weather moderated, but I did not care to start then and get into day-travelling again, so I sent Ooblooyah and Egingwah back to Cape Columbia to feed the dogs and bring the rest of the bull musk-ox meat up.

We slept almost continually while here and so made up for lost time. To me it was particularly acceptable. Since my return to the ship, I slept very irregularly and not a great deal, owing to the change from snow-house and tent, to the ship; and since starting on this trip, what with getting things arranged at Cape Hecla and Point Moss, and then killing the musk-oxen, and the Eskimos running in and out all the time, eating, and drying their clothing, I had slept very little.

Here with their stomachs full, and no chance to putter with their clothes, they have stayed in the tent and slept. The wind and snow have also made the temperature of the tent low enough for comfortable sleeping.

My two men came back from Columbia at noon, the dogs were fed all they could eat, we ourselves had a generous feed of musk-ox and tea, then turned in, the indications being that the dirty weather was nearly at an end, and that by night we should have it fine again.

At 7 P. M. I woke to find it snowing and blowing again.

I made coffee and we hitched up and came on to Ward Hunt Island in a driving northerly snowstorm, through some six inches of soft snow on top of the old snow and constantly increasing in depth.

Owing to my disinclination to exert myself in going ahead on snowshoes to set the course, it was impossible to drive the dogs straight, and we came outside the island instead of inside.

Soon after camping it began to clear, and during the day while we slept, the sun shone bright and warm

though the land was covered with clouds and fog, and only the nearer portions visible.

After this we had a fine travelling night, clear, cool and calm, and came on to "Rainbow Hill," Cape Alexandra, in eight hours. The new light snow made fine snowshoeing, but was very heavy for the dogs and sledges; and this heaviness was accentuated in the series of rolling swells which are a feature of this peculiar ice-foot (?) along here. These swells are on a large scale, and reminded me very strongly of portions of the ice-cap of Greenland. If they are not huge drifts, I do not know how to account for them. Off Ward Hunt Island and especially the western end, they are particularly marked, and here they blend into drifts formed in the lee of the island.

We camped at Cape Alexandra on a patch of bare, dry gravel near what seemed to be the site of a river.

As the tent was set up, two brant flew over. A fine supper here of musk-ox steak, bacon, tea and biscuits, after which I sent two men up the valley to look for musk-ox, deer and hare. During this march a man without snowshoes would go in about knee deep.

My two men returned before noon with three hare, all small and with very long ears. It occurred to me this might be a new species or variety. The head of one was turning brown. One female contained five young, ready for delivery.

My men saw twelve hare in all. They also saw the tracks of a large bull musk-ox, made before the recent snowfall, going east, and the antlers of a deer.

A fine, warm, sunny day enabled us to dry out our clothing and gear, all wet from the recent snowfall.

Up to this time, I had not encroached upon the store of pemmican with which I left Point Moss, the captain's small cache of four cans just making the one feed which I gave the dogs off Challenger Point, and the rest of their feeds having been from the Columbia musk-ox. When we turned out at Cape Alexandra we had rabbit stew for breakfast.

From Cape Alexandra we went on in eight and one-quarter hours, to McClintock Bay, the going heavy through the recently fallen snow, and everyone wearing snowshoes as usual. We attempted to cut across over the foreshore from Cape Alexandra to Cape Discovery, but found the grade too heavy, and the snow still deeper; and as I did not feel like breaking the trail ahead on snowshoes, we descended again, and went round it. We camped about in the middle of McClintock Bay, which looked very little as it appears on the chart. The eastern arm is a large deep inlet, running in about west to south (magnetic), and the middle western arm bends more to the west than shown.

Cape Discovery is a bold mass, with a small glacier between the two arms of the bay, and there is apparently a large glacier ahead, for the point of which we are travelling. This entire bay with its ramifications is a black-walled indentation, its shores nearly continuous cliffs, except at the head of the middle arm, and apparently at the head of the eastern arm.

Any party traversing this coast and having the time, would do well to examine these two places, and if in need of meat should certainly do so as they will be likely to find musk-ox there. The night while we marched was raw, a fresh easterly wind blowing, and

everything obscured by fog and clouds until about 4 A. M. when it cleared and gave us brilliant sunlight. It looked now as if the last of the recent storm had disappeared, but one can never tell up here. Our camp here was nearer to the sea ice (the edge of which was distinctly visible) than any since leaving Cape Hecla.

I was still inclined to think that the peculiar ice and snow formations along this coast owe their existence to the wind.

At the camp off McClintock Bay a clear brilliant day with light easterly breeze, and late in the afternoon strata of fog forming and hiding the tops of the land, was followed by a foggy night for travelling, but better so than bright sun.

We marched in deep snow until the increased density of the fog made it impossible to see where we were going, then camped off the Glacier at Cape Fanshawe Martin.

Our short marches, abundant food, and my special care of myself have put me in better condition than when I left the ship; the swelling of my feet and legs has apparently ceased, and in this march I took my regular turn at breaking the trail ahead of the sledges with snowshoes. An eight-hour march and four of us gave each two hours, in one-hour spells.

A sandpiper flew over our camp, and during the march a skua gull and six brant flew over us. Just before reaching this camp, we saw a hare on the bluff, and Koolootingwah went in and got two. He reports last summer's musk-ox tracks.

The middle point in McClintock Bay is apparently

an island, and the so-called "spits" from McClintock Bay on, are true glaciers.

The formation this side of Cape Alexandra is probably the same.

In this camp we were at the west coast "corner" as it were, this Cape Fanshawe Martin being in the same latitude as Hecla, and the cape next ahead of us the same latitude as Joseph Henry, then the coast trends more rapidly to the south.

I felt that from here I ought to make Aldrich's "Farthest" in four more marches, possibly in three.

From Cape Fanshawe Martin the snow was deeper than ever, and this combined with fog and snow squalls, made the march not particularly pleasant. We came along fairly well, however, and with any luck at all, I felt that we should make Aldrich's "Farthest" in two more comfortable marches. I did much more than my share of breaking a trail on this march, owing to the fact that my Eskimos could not keep a straight course in the fog. The glacier which we followed along, had a pronounced tidal crack delimiting its front, and outside of this the ice was pushed up in a great rounded ridge, a terminal moraine of ice in fact. It looked very much as if getting on to a coast with a different exposure (west instead of north) was going to result in quite different general characteristics.

We were now in Yelverton Bay, the last great indentation crossed by Aldrich, and the snow about our camp was so deep and heavy, that I decided to go straight out to the edge of the ice-foot, and follow it.

This promised several advantages—first, better going as the snow is almost always deeper in the bays than

outside, and the tidal overflow at the edge gives patches of good going. Second, we would have something to follow in dense fog. Third, there was the chance of coming upon a bear, and fourth, the certainty of finding water, which would economise our fuel.

After travelling some four hours about due west, and not reaching the ice-foot, I got a little irritated and made up my mind to go to it no matter how far out it was.

We were all night (8½ hours) reaching it, and then found it no true ice-foot, only an irregular line between the ice of the bay and the broken ice outside, with no tidal joint whatever. A few hundred yards out was a lead of open water, and a sounding in this gave no bottom at 155 fathoms. Two hours from camp we opened up past Cape Albert Edward, what at first appeared to be an island, but later showed as distant connected land, and, might, I thought, be the northern part of Jesup Land.

In any event whether that or a continuation of the Grant Land coast, I was now looking into the unknown.

This Yelverton Bay is full of glaciers, and one presents the usual characteristics of the Whale Sound glaciers (vertical face and crevasses).

The glacial fringe here has a distinct glacier characteristic in that its surface is undulating, and there is a gradual descent in going away from the land.

A sandpiper flew over in this march and a seal was seen while we were making the sounding.

The night, while we marched, was clear, calm and warm, a striking contrast to previous ones.

I broke the trail for five and one-half hours, and on

arriving at camp felt the effects of it. I was still decidedly below par.

June 16th we were off Aldrich's "Farthest." It had been alternately sunny and foggy while we slept, and at the ice-foot settling down to cloudy with frequent fog banks during our march.

From our camp at the ice-foot I set a course direct for the point beyond Cape Alfred Ernest, and marched for eight and one-quarter hours. The edge of the ice was still visible, but it was because we were up above sea-level on the undulating surface of the glacial fringe.

There was water all along the edge of the ice-foot and out to the westward apparently a large area of it.

A sandpiper flew over as we were breaking camp.

A day's march beyond Aldrich's "Farthest," and what I saw before me in all its splendid, sunlit savageness was *mine*, mine by the right of discovery, to be credited to me, and associated with my name, generations after I have ceased to be.

While we were in camp at the "Farthest," it cleared completely, and when we turned out, there was not a cloud nor bit of fog visible anywhere.

The distant land which I had thought to be the north point of Jesup Land, showed now in the clear atmosphere to be an extension of the Grant Land coast appearing over a long glacier.

I changed our course for this most distant point and kept this course all day.

After marching four hours I made out from one of the ice swells, land still farther to the right (west). This land I saw during the march the night before, when coming out to the edge of the ice, but my Eskimos

THE ALPINE SUMMIT OF CAPE COLGATE

CAPE THOMAS HUBBARD

Northern extremity of Jesup Land (Heiberger Land of Sverdrup)

CAPE COLGATE

Northwestern angle of Grant Land

thought it was only the sun shining on large pieces of ice and as it seemed to change its shape, I was inclined after a time to agree with them. There was no question now as to its being land, and I thought it must surely be Jesup Land this time.

The going was very heavy throughout the march, and getting worse, the snow deeper than ever.

There had been no strong wind in this region since we left the ship at least, for the recent falls of snow lay just as they fell.

The surface of the glacial fringe during this march was intersected with narrow water cracks which seemed to delimit the larger swells, and I observed some hummocks and true crevasses.

Between us and the distant cape which was our objective point another long flat glacier snout could be seen pushing far out.

Two smaller glaciers abreast of our camp showed all the true glacier characteristics of seracs, crevasses, and vertical faces.

I quote from my Journal:

June 18th.—Fifteen *paced* miles in eight hours and forty-five minutes, including fifty minutes stops for angles. My own speed of three miles per hour (one-half mile in ten minutes), then a five minute wait for the dogs, just made things even.

My brain is numb with the incessant 'one, two, three' of counting my paces all day long.

The travelling continuously very heavy. I have paced the entire fifteen miles, and the men (on snow-shoes as usual) have walked beside their sledges.

Without snowshoes we should not have made over half the distance, perhaps not more than five miles.

One dog played out and dragged into camp behind the sledge, three others next door to it.

We are now abreast of what looks as if it might be a musk-ox country and I must go in and reconnoitre it as soon as we have had some sleep and the weather permits. I cannot give the dogs more than the allowance of pemmican, and that is not enough for them in this heavy going.

The first half of the march was clear, following a brilliant day in camp, then clouds and fog gathered with a wind directly in our faces, and the latter part of the march was decidedly bleak and cold, in striking contrast to the previous one, when I travelled comfortably in my blanket shirt.

Almost by the time the tent was pitched, it was snowing, and is now snowing and blowing heavily from the southwest (true).

The course to-day has been for the most distant cape, and using this line as a long base, I have fixed points of the coast by intersections.

It is rather aggravating that the day on which I begin my running survey, should be worse than previous ones, but that is the Arctic way.

In to-day's march we passed the mouth of a black precipitous-walled bay, some eight to ten miles wide at its mouth, with apparently several interior ramifications. *Mine!*

CHAPTER X

WESTWARD OVER THE GLACIAL FRINGE OF GRANT LAND (CONTINUED)

IT BLEW and snowed all day of the 18th, and for several hours of the 19th. Then the snow ceased, but the wind continued with increased force, keeping up a blinding cloud of drift.

We broke camp, leaving all but two days' rations, and our tent and gear, and went in to the land about six miles distant. The march, short as it was, was as disagreeable as I had experienced for a long time, the bitter wind finding every opening in our clothing and filling it with snow, which then melted, so that when we reached the land, we were all thoroughly wet. Close to the land we got out of the drift, but did not escape the wind.

I was the first to set foot on the "new land," a level patch of fine dark earth and gravel, and was greeted by numbers of purple Arctic flowers, and a few steps showed patches of grass, and moss, and old tracks and droppings of reindeer and hare. A few minutes later a skua gull flew over, and while the tent was being set up, a brant.

The tent completed, I filled Egingwah and Ooblooyah with coffee, and started them to reconnoitre the adjacent country thoroughly. They were gone about five hours, one going southeast, and the other southwest.

Ooblooyah returned with two hare and reported seeing two others, also old musk-ox tracks. Egingwah saw one hare.

One of the hare went into the pot immediately, then we turned in, to turn out again at midnight and finish the other.

Koolootingwah and Ooblooyah were then sent with two sledges and all the dogs except three played-out ones, to reconnoitre a valley up the bay, for the musk-oxen which were our crying need now. Egingwah at the same time started out for hare again. All this time it was thick and blowing with frequent snow squalls, keeping everything wet.

Egingwah returned after several hours with two hare, all that he had seen. While he was skinning these, a flock of eleven brant flew over and settled in a bit of water not far away, where he secured one of them. A little later a burgomaster gull was seen. The "O-o-o-he, O-o-o-he" of the purple sandpiper was constantly in our ears. The blue flies so abundant at Columbia seemed to be entirely absent here.

At 10 P. M. my other two men returned unsuccessful.

They reported the valley an attractive one, with a lake which they thought contained salmon, and showing plenty of grass, moss, and willow.

They found old tracks, droppings and antlers of deer. but nothing recent, and no traces of musk-oxen.

Numbers of hare and ptarmigan were seen, and six of the former and one of the latter secured. Also a number of brant.

The wind had ceased now, and the sun was trying

to shine, but it remained very thick with a constant drizzle of wet snow.

I was much disappointed at the failure to secure game here, particularly when combined with the enforced delay by stormy weather.

I could to a certain extent counteract this, and increase my radius of action with the limited dog-food I had, by sending a man and team back from here, and this I decided I must do.

Numbers of lemming burrows were observed here, also snowy owl exuviæ containing their skeletons and hair.

The sun shone occasionally during the 21st but the land remained hidden continuously by dense fog.

With much trouble we succeeded in drying out most of our clothing, and then broke camp and got out to the cache, and proceeded on our way.

A snow-bunting was seen and an additional number of brant. The flock which seemed to be hanging around here numbered about eighteen. The one shot was a female and the eggs in the ovaries were small.

The hare killed here (ten in all) were small, very thin, and the meat tough.

In getting away from the shore camp we marched through about a mile of knee-deep slush and water, thoroughly wetting our feet of course, and came out to the cache; fitted Koolootingwah out and started him for the *Roosevelt;* left a small cache of provisions, and the various specimens; loaded the two sledges with the remaining stuff (about nine days' rations of pemmican) and went on ten paced miles.

This was a disagreeable march; no sun, only fog

and clouds and snow squalls, straining the eyes and rendering it very difficult to keep a course; strong head wind and deep soft snow, but it was good to be moving again.

It was thick all day while we slept, and continued so, with the land invisible. Just after we pitched the tent, there was a brief, sharp flurry of hail, which rattled on the tent in great shape, and startled the dogs.

Another wearing march, though an improvement on the previous one; and I had no reason to complain as we covered sixteen paced miles in seven hours fifty minutes, including ten minutes for lunch, and fifteen for examining some moraine tumuli. Though the sun did not shine through the clouds, it was warm enough to thaw the surface of the snow, and this layer of wet snow made very heavy snowshoeing. As a compensation the sledges ran measurably easier.

I kept the same pace as on previous marches, one-half mile in ten minutes, then waited for the dogs to come up. In this march the dogs made each half mile in twelve and one-half minutes, as against full fifteen minutes in the two previous marches.

The densest of fog shrouded us for the first five hours, and I kept my course by the wind-marks in the snow; then it cleared overhead, and the sun shone brilliantly, but the land remained shrouded.

There was a persistent "fog eater" (fog bow) ahead of us during this time. From 3:30 till 7, we could just make out the low shores on our left. We pitched our tent on a little patch of just-dried glacial clay in what seemed to be a small bight of the shore, and having plenty of water about us the supper was quickly cooked.

Then the fog shut in again completely, and nothing could be seen but a bit of the shore nearest us, and this very dimly.

The ice traversed in this march was a succession of swells of moderate height. The light and shade after the sun came out, allowed the undulations of this remarkable ice-foot to be very clearly seen, and I was more and more reminded of the ice cap.

I quote from my Journal:

June 24th.—Occasionally (though rarely) this country affords complete and surprising changes for the better. The last twenty-four hours have been a case in point. A day of comfort, of interest, of accomplishment after the five days of storm, delay and disappointment.

It continued foggy all day at the last camp, but began to clear when I started breakfast, and at 11 P. M. when we got under way, it was as fine and clear as could be desired.

I went on ahead of the sledges. Two miles from camp brought me to a low point, then a walk of some two miles or more over bare, dry gravel, where I saw a sandpiper, two brant, the recent tracks of four deer in the snow, the place where they had slept, and picked up a perfectly bleached buck antler.

Then joining the sledges we came to a low point six miles from camp. Two hours from this with good going, at a three-mile-an-hour pace, brought us to another low point under the mountain for which I have been setting my course during the last fifty-three miles.

Though this striking peak looked very steep from

the east, I was satisfied as we came along that it was practicable and after a brief reconnoissance, I gave the word to pitch the tent, that we would devote the rest of the day to the ascent.

I felt this was an opportunity not to be lost; the brilliant weather, the chance to perfect my principal angles, and the practical certainty that the elevation would enable me to see what there was beyond, and, I hoped, show me the desired north end of Jesup Land.

After preparing lunch of corn-meal mush and tea, we started for the ascent.

From the summit 2,000 feet above the sea level and of a more truly Alpine character than any that I have seen in northern Greenland, or Grant Land, the view was more than interesting. East lay the wide white zone of the ice-foot; west the unbroken surface of Nansen's Strait, and beyond it the northern part of that western land which I saw from the heights of the Ellesmere Land ice cap in July, 1898, and named Jesup Land, though Sverdrup has later given it the name of Heiberger Land. South, over and beyond some intervening mountains and valleys, lay the southern reaches of Nansen's Strait. North stretched the well-known ragged surface of the polar pack, and northwest it was with a thrill that my glasses revealed the faint white summits of a distant land which my Eskimos claimed to have seen as we came along from the last camp.

From this point I followed the western shore of Grant Land south until it began to trend eastward, hoping to find Sverdrup's cairn and record, but without success, though we all searched the shore carefully.

I then headed directly across the strait to the northern extremity of the western land. The ice in the Strait was to all appearance a continuation of that forming the glacial fringe of the Grant Land coast.

Again I quote from my Journal:

June 28th.—Two red-letter days which have seen the realisation of another of the objects of this present trip, *i. e.*, the attainment of the northern point of Jesup Land.

With my feeling of satisfaction is a feeling of sadness and regret that this may be the end of my Arctic work. From now on may simply be putting in shape what I have already done. Twenty years last month since I began, and yet I have missed the prize.

Oh, for the untiring energy and elasticity of twenty years ago with the experience of to-day.

It seems as if I deserved to win this time.

The fog which all day of the 26th hid Jesup Land, dissipated before we got under way and showed the entire coast clearly.

Still keeping on a direct line for the foot of the bluffs of the northern point, one and one-half miles from camp brought us on to sea ice, and as the snow was soft and deeper on this, and there was more water on it, I gave up my "bee-line" course and kept off to the left on the ice of the Strait.

At twenty miles we touched the ice-foot at a low bluff point, and found quite a deep bay (five miles at least) separating this from the northern point.

The snowshoeing had been very heavy thus far, our

shoes sinking deeply into the saturated snow, and coming up at each step loaded with several pounds of it; but from here it was worse, the snow still softer and underlaid with water, and the last two miles of the five to the cape, over hummocky ice was almost continuous wading through one pool after another.

This bay makes up into a wide low valley between the mountains on the east coast, and the mountains extending back from the north point.

As the region seemed rather inviting, it was carefully examined with the glasses, and tracks of musk-oxen or deer made out in the snow. This was very pleasing to me as my dogs are sadly in need of an addition to their pemmican ration.

Just before stepping on the gravel of the foreshore which makes out from the bluffs of the north point, I saw two hare, a step or two farther three more, then another. At 3.50 A. M. I stepped ashore, followed a few minutes later by my men. A little before this, a flock of nineteen brant flew over us.

I sent Egingwah away at once after the hare, told Ooblooyah to look after the dogs, and slinging the binoculars over my shoulders, started west for the crest of the foreshore to see what was beyond.

There was more moss on the gravel here than at any place we touched on the Grant Land coast, also an occasional tuft of grass and frequent purple flowers. In the calm air, and brilliant sunshine, the place had a very warm and inviting look (heightened by the sound of running water) which even my aching legs and ankles, and icewater-saturated feet could not lessen. Only a few steps and I came

on the recent tracks of six deer in a patch of snow, and this put me on the alert and made me go cautiously.

About a mile from the sledges as I rose over a gravel ridge, there were four deer, two close by, a doe and fawn farther on.

I dropped down at once, watched them a moment or two, then turned to signal to Egingwah.

He had secured one hare, and fired at another, then I saw him start towards me on the run. He had seen the deer almost as soon as I. When he came up, I sent him on, and in a short time he had two of them down, the doe and fawn making off up the foreshore to the west.

It was now just thirty-five minutes since I had landed, and we had two deer and a hare. I sent Egingwah back to Ooblooyah to bring up the dogs and sledges and while he was gone the cry of the purple sandpipers was continuous about me and I saw a white fox skulking along the rocks.

When the boys came up, the tent was pitched near the deer, and convenient to water, and I made coffee.

Then Ooblooyah was sent after the doe and fawn and after photographing the deer, Egingwah and I skinned and cut them up, and fed the dogs generously.

Both were does, neither pregnant, nor very large, and very thin though evidently putting on flesh, the skin of course in bad condition and antlers in the velvet. A very noticeable feature was the length of the hoofs, and the development of the dew claws into regular spoons as large as a hare's ears, thus giving the deer natural snowshoes, which they need in this country

not only for the snow, but for the boggy saturated ground as well, at this time of year.

Some time after the work was completed and I was sitting in the tent reloading my camera, when Egingwah came running to say the doe and fawn were coming back, and regretting that he had no gun. I gave him my revolver which carried the same cartridge as the carbine and told him to try that. Before the deer got in range however, they smelled or heard the dogs, and started off for the little valley again.

Then we saw Ooblooyah returning, and he seeing the deer, ran back and ambushed the doe as she entered the ravine. Hearing his shot, Egingwah went off to him, and at 11 A. M. they were back in camp with the meat of the doe. I had told Ooblooyah to bring the fawn in alive if possible, and being unable to catch it, the boys had left it and the skin of the doe, until they had further instructions.

I had a pot of tea, and another of cooked meat ready, as we had had only our coffee and biscuit since our breakfast thirteen hours before (not that this was a great hardship, but it was enough to give us robust appetites).

Our zest was increased by the fact that for the last five days, we had been living on preserved eggs and mush in order to save the pemmican for the dogs. This is a very good diet in ordinary climates, but by no means takes the place of meat for work under these conditions.

After eating, the two men turned in, but I remained up till 3 P. M. to get a latitude observation. All

this time it was calm and brilliantly sunny and warm.

At 9 P. M. I turned out after practically fruitless attempts to sleep, owing to the heat in the tent, and the swarms of big blue flies which, attracted by the meat, swarmed round and into the tent and over us. During an hour or two of this time, there were some heavy squalls which shook the tent viciously, and overturned my transit but without injuring it.

Coffee finished, and the dogs fed again, they were all hitched to the one sledge, and we started at 11 P. M. for the summit of the cape.

A big snow drift on the east side enabled us to take the sledge to an elevation of about 600 feet.

Here it was left, and the dogs fastened, and we went on up an easy ascent of loose rocks alternating with banks of snow, reaching the summit (about 1,600 feet) comfortably in an hour and a half from camp.

On the summit we built a cairn similar to that on the summit of Cape Columbia, in which I deposited a brief record and a piece of my silk flag as usual.

The clear day greatly favoured my work in taking a round of angles, and with the glasses I could make out apparently a little more distinctly, the snow-clad summits of the distant land in the northwest, above the ice horizon.

My heart leaped the intervening miles of ice as I looked longingly at this land, and in fancy I trod its shores and climbed its summits, even though I knew that that pleasure could be only for another in another season. While I was thus engaged my men made out three deer in a valley south of us.

With the completion of my work on the summit, and the building of the cairn, we came down to the sledge and dogs, from whence I returned to camp, while the two men went after the deer we had seen. I started to return without snowshoes, so the men might take them along, but as I went into the wet snow to my hips at every step, I changed my mind and retained them.

Just below the lower edge of the snow as I came down, a flock of not less than one hundred brant were feeding and sunning themselves. When I came within fifty yards they rose.

Back to camp at 4 A. M. for my breakfast.

Then I started with my transit for the end of the low point (extremity of the foreshore) to select a place for a cairn, and take a few angles. After going less than a mile, I was obliged to give it up and return to camp, the saturated clayey earth letting my feet sink in nearly to the top of my boots at every step, and taking all my strength to pull out. With snowshoes I could have got along, but I had left those at the snowbank a mile or more on the other side of the camp, and was too lazy to go after them. I was forcibly reminded of the travelling Trevor-Battye found in Kolguev.

After this I brought more rocks for the tent guys, then took a nap to make up for the previous night.

At 2 P. M. the men returned. They found at close quarters that the three deer seen from the summit of the cape had increased to six and a fawn, all of which were secured (three bucks and three does). They scarcely had the dogs fastened when yesterday's fawn

came trotting up to within fifty yards of the tent, then started off again.

Egingwah went after him, followed him up to the mother's skin, and brought both in.

We all had another square feed, the dogs as well, more stones were added to the tent guys, and the men were soon snoring.

By this time the wind was blowing very fresh, clouds were gathering, and there was every indication that this spell of fine weather was at an end.

I had no reason to complain. It had lasted long enough for me to get and see what I wanted.

When we awoke about midnight, snow or, more likely, rain was so evidently imminent, that I had the men cover the deerskins with the floor cloths, feed the dogs to repletion, and sew up some holes in the tent. This was barely completed when the rain began, driving furiously before a strong southwest gale.

But with a waterproof tent, gravel underneath, all belongings that were not in the tent protected with waterproof covers, the dogs and ourselves well fed, and an ample supply of food at hand, we could take this kind of weather with a good deal of equanimity.

I quote from my Journal:

July 1st.—Am glad to be over this first stage of our return journey short as it is.

The storm continued throughout the 29th and 30th, rain falling during the middle of the day, and snow the rest of the time, with continuous strong south-westerly wind.

This morning it moderated, and I got out at once

and moved everything down to the ice-foot where we had left one sledge. A small cairn with a piece of box embedded in the top of it was built not far from the ice-foot upon the low fore shore. While this was being done a lemming was caught, thus adding this animal to the fauna of Jesup Land. No previous cairn exists on or near this cape nor does it appear from Sverdrup's narrative or his map that he reached this point. The two sledges were then loaded and we started on our return, but not by the way we had come.

While not exactly an open polar sea, our outward track was now impracticable to anything unable to swim.

The four days since we came over it had worked surprising changes and what with the direct melting, and the water poured on to it from the land, the ice was completely flooded.

We made a long detour into the bay lying between our camp and the next point to the east, picking up the rest of the meat the boys got on the 28th, and landed on the point after four hours of wading.

I reached the land a little farther up the bay than the sledges, and saw a deer grazing.

After the sledges came ashore, the tent was set up, I made tea, all our gear and clothing, saturated by the trip, was spread out on the gravel to dry, as the sun gave symptoms of appearing; then I sent the boys to bring in the deer which they did in about an hour, (a buck with small horns in the velvet).

This made twelve obtained thus far. A fresh track was seen between the tent and the sledge which we

left; and another deer was seen on the opposite side of the bay.

Our camp here was well located, the tent pitched on a mound of fine, dry gravel close to a small brook by which the dogs were fastened, and which at a pool a little farther up furnished us with clear cold water.

I found two poppies and a bit of sorrel in bloom here.

From the top of the bluffs back of the tent, where I could look across the Strait, I made out a good deal of water on the ice, but I hoped we should not find it as bad as during the last march. It was evident, however, we were going to have lots of trouble going back and were going to be wet all the time.

Camping in this region in June, July, and August, if on land, and it is clear and calm, and one is not under the necessity of travelling every day, can be very pleasant.

But if it blows or snows, or both, or if one is on the sea or bay ice and obliged to get somewhere at a certain time, it is sure to be very unpleasant.

The sun shone enough to quite perceptibly dry our things, but as it got lower, the fog and clouds gathered again.

The dogs were fed nearly all they would eat, as meat carries very much lighter inside them than on the sledge, and I hoped that with the rest and good feeding here, they would do better work going back.

The two boys skinned out the deer heads and tried to dry the skins.

I must confess to a feeling of sadness and regret at leaving this last camp. It was a striking picture, the

deer and hare, feeding in the brilliant sunshine under the high bluffs, the call of the birds, and the sound of running water. And the picture will be repeated again and again, summer after summer, but I, to whom it belongs, should never see it again.

I quote from my Journal:

Southwest Camp, Grant Land. 2 P. M. July 3d.— Back here again, across the channel, with less discomfort and hard work than I had reason, in the light of past experience, to expect.

It rained continuously during the 2d, with fresh southwesterly breeze, making it not exactly impossible, but disagreeable for us to travel, and preventing the drying of the deerskins. As before, however, with a waterproof tent over us, and plenty of food for our dogs and ourselves, we were physically very comfortable, and slept much of the time, my two men almost literally all the time.

I knew, however, that every hour of the rain was making our return road more difficult, and as soon as the rain ceased (about midnight), we broke camp and started, getting away from the extremity of Twenty-mile Cape at 2 A. M. this morning. The entire bay which we crossed on the 1st, was now a continuous sheet of water.

The first two or three miles of the channel were very decent. After that, it was only by following the deep snow along the pressure ridge (a road impracticable without our snowshoes and broad-runner sledge) that we were able to advance. On each side were lakes of water, and deep morasses of slush.

When we took a step without snowshoes we would go in to mid-thigh or even hip.

Fortunately the dogs feel the effects of the rest and generous fare on Jesup Land, and we made practically the same time as in going over,

Of course our feet and legs were soaked in the ice-water from the very start, crossing the morasses from one piece of decent going to another.

At noon we reached the edge of the ice-foot on this side, and found it a broad river, which we had to ford to get to the site of our camp.

We have crossed without any time to spare. In one or two days at most, the channel will be impassable for two or three weeks (depending upon local conditions) until the snow has all melted and the water drained off.

On this side the change has been very pronounced since we left.

Where there was just enough bare gravel for us to set the tent a few days ago, are now acres of snow-free ground.

Looking over this region I am struck with the pronounced igneous or even volcanic character of the rock specimens, something very much like pumice and slag being abundant. Is it possible that the twin snow-mountains back of us are extinct volcanoes?

The march from Southwest camp to Observation Camp was the hardest and most disagreeable of all, and the thirty-six hours the most uncomfortable of the entire trip.

We got away from Southwest Camp at 2 A. M. of the 4th. The promise of the previous afternoon of good weather, had not been kept, and all but the base of the land was buried in cloud (Jesup Land of course invisible). For an hour we got along fairly well following the raised edges of a tidal crack, then fog descended upon us and we waded and floundered through pools of water to the land at West Point (which is really one of three islands). Along the shore of this, and the next island, was decent going on deep snow, and so across the ice-foot to the edge of the tidal crack west of Northwesterly Point and along this to the point itself.

From here to off Intermediate Point we had more trouble as the tidal crack was not so well marked.

It had commenced to snow at Northwesterly Point and from Intermediate Point we had it very uncomfortable. The snowfall steadily increasing blotted out every thing over a hundred feet distant, and was accompanied by a penetrating wind from the northeast and yet was damp enough to melt on our clothing, and saturate us wherever we had escaped wetting in our constant wading.

Impossible to pick a route, we could only work along in a general direction, guided by the wind.

For several hours it looked as if we would have to camp in the slush on the ice; then it lightened enough to let us pick a way, and at last after wading the broad ice-foot river, I stepped on the point at Observation Camp. Every thread on me was soaked with snow-water, and every joint and muscle ached with the exertion of pulling out the slush-laden snowshoes at

every step. I was not inclined to complain however, for the gravel here, wet as it was, was much preferable to a foot of icy slush as a bed.

I still had a dry coat and dry stockings to sleep in, though my trousers and underwear were all I had, and should have slept fairly comfortably, but for a blinding headache from the fumes of the Primus stoves, which of course went particularly wrong now. This headache lasted me until I got out for a tramp after Ooblooyah had laboured five hours sewing my trousers, which the heavy snowshoeing and lifting on the sledges had completely wrecked.

It snowed incessantly after we arrived, making it impossible to pick a road through the icy swamps east of us.

A seal was seen near the ice-foot just before we got ashore here, and ten brant flew about our camp at Southwest Camp.

When I turned out, I was old and stiff in every joint, my feet and ankles swollen and my left foot almost out of commission from some wrench. The doctor's salve brought it round a good deal, and I hoped to be able to use it when the weather cleared.

One thing was sure, I simply could not have done the work I was doing now, when I left the *Roosevelt* or for a good many days after.

It was rather a disagreeable 4th of July celebration for us, wading through ice-water, and the weather such that I could not even fly the flag.

I hoped this constant snowfall would squeeze all the moisture out of the air, so that we might have

some more fine weather, though I feared that we were going to have the same weather for our return that I had in July, 1899, in Princess Marie Bay.

RETURN FROM "FARTHEST WEST"

CHAPTER XI

THE RETURN FROM "FARTHEST WEST"

I QUOTE from my Journal:

July 6th.—Another day of hell, except that there has been too much water to comport with the orthodox understanding of the place.

About 5 P. M. yesterday, the fog and snow lightened sufficiently for a short time, to permit studying out a route to the next point to the east, among the lakes.

We then turned in for some sleep before starting, as we had already been up and awake over twelve hours. Waking at midnight, I found the fog had settled down densely but it was no longer snowing.

We ate our breakfast, then I had the men build a cairn in which was put a brief record in a bottle, and we started.

The going was fairly good, and, after wading a wide ice-foot river, we reached as we supposed the point and followed the shore of this for some time, then got mixed up among some of the glacial deposits (all the time floundering through deep slush and icy lakes), and finally made camp on a pile of moraine material abreast of our camp of the 23d.

The land we followed is a low island, snow-covered when we went out and not noticed. The real land

which we can just see dimly, is unattainable, by reason of a wide, unfordable lake.

The sun shone enough at intervals at this camp to nearly complete drying the six deerskins begun at Twenty-mile Cape.

Leaving this camp in overcast weather, we reached the twelve-mile tumulus, after wading stream after stream all running to the land.

From the summit of the tumulus I saw the ice ahead of us in the same condition; a gigantic potato field with a long blue lake or a rushing stream in every furrow.

Wading these constantly, we at last reached the tidal joint and followed this in comfort to a position almost abreast of our camp of the 21st. Only the base of the land was visible at any time. Everything covered with a pall of inky clouds.

While we slept at the last camp, the temperature fell below the freezing point, crusting the snow, and freezing the smaller pools of water, and the northeast wind which had been blowing ever since we left Southwest Camp, increased to a half gale, shaking our tent violently. The low canopy of inky clouds remained the same.

With all our clothing wet, and our foot-gear saturated, this was almost serious for us, and made the first half of this march extremely uncomfortable. Added to this, I felt pronouncedly off-colour on waking. The last two days of constant wading and the heaviest of snowshoeing had taken it out of me quite a bit.

Four hours after leaving camp, we were abreast of

EGINGWAH AND REINDEER AT CAPE HUBBARD

CROSSING A STREAM ON THE GLACIAL FRINGE

OUR CAMP ON LAND WEST OF ALDRICH'S FARTHEST

my cache, made where Koolootingwah turned back and I sent the two men with one empty sledge and all the dogs to get it. They were bothered a good deal in reaching it by the lakes and streams. We were following the only practicable road. Without it, we would not make more than half our progress. On each side of our trail was a nearly continuous deep blue lake, into the outer side of which flowed at short intervals, streams and from the inner edge of which at every available spot streams had bored a way through to the tide crack into which they poured with a rush.

After leaving the cache we travelled for four hours more. The snow was nearly all gone from the ice here now, and two or three days more of warm weather would remove it entirely. The effect of the fall in temperature was very perceptible in the lowering of the water-level in all the smaller pools.

The sun shone at intervals during the march but could not make up its mind to clear, and wind, directly in our faces, continued.

It was a great comfort to start the next morning with dry foot-gear, even though it did not stay dry long.

Quite decent travelling most of the day though we had a few hours of heavy work. There were plenty of lakes and streams all about us, but keeping along the crack saved us. Anywhere else was nearly if not quite impracticable.

The bulk of the snow had already melted, and the streams were falling, but of course many of the lakes would remain till they froze the next fall.

The sun shone at intervals alternating with dense

fog and snow squalls. The wind was fresh while we slept, and through the greater part of the march, but died away, about as we camped, and it became dead calm and foggy.

We camped on the outer swell of the great glacier forming Aldrich's last "low-sloping spit."

The more level ice-foot extending from the base of this swell to the ragged sea ice, ten to twelve miles distant, was covered with lakes and rivers.

For a half hour or so, I had some striking views of the magnificent peaks from Cape Alfred Ernest westward.

Again I quote from my Journal:

Yelverton Bay, July 10th.—Out of my new domain, and back into the known world again.

It was calm while we slept at the last camp, and the sun was warm enough through the fog and clouds, to still further dry our clothing and gear.

Got an earlier start than usual and had good going, and decent weather (calm and overcast) until 9 A. M. when we struck the river from a glacier at the head of the bay, and after deflecting for two miles along its swampy banks, were obliged to ford it, one hundred yards wide, knee deep, and running with a current that threatened to sweep us and the dogs and sledges away. Then the thick fog making it impossible to pick a course through the lakes and rivers, I camped.

Our tent here, as at the last camp was in a slushy swamp, a small spot being made a little firmer by tamping the snow first with the snowshoes, and then with our feet.

Two fine snow-capped mountains back of Alert Point are deserving of a name.

Off Milne Bay, July 11th.—Another day of watery hell, beating out in fog and driving snow, through the devil-inspired labyrinth of lakes and rivers set in a morass of knee-deep slush which fills this bay.

Nine and one-half hours of uninterrupted travel brought us out to the series of "rafters" which form the line of demarcation between the edge of the bay-ice and the pack. Here the roar of some river or lake which was pouring through a crack to the sea, filled our ears.

Whatever obstacles may be in our way now along this rafter (and God knows there will be enough of them of one kind or another) there should be no rivers to ford and such lakes as there are will in all probability be parallel to our route.

This going is as yet not quite as bad as the return from the July trip in Princess Marie Bay in 1899, but there is plenty of room for it to become a good deal worse in the miles between here and the *Roosevelt*.

Fifteen years ago to-day, I broke my right leg in Melville Bay.

Two played-out dogs killed and fed to the others.

Near Cape Richards, July 13th.—At last we are round the corner (Cape Fanshawe Martin) which we have been struggling toward for four days (including to-day) and which has seemed to recede as fast as we advance.

The going to-day much the same as yesterday,

perhaps a little better at the end, but I got my worst wetting, a slip of my feet while pushing the sledges over a bad place, sending me into the water up to my waist. This rendered the latter part of the march somewhat uncomfortable.

But one gets used to this constant wetting (as they say one gets used to anything) and I no longer mind my saturated clothing.

I wring it out when I turn in, and give it another twist when I turn out. It has reminded me of my Nicaraguan experiences, but the temperature of both air and water is somewhat different here.

The sun shone a little at the last camp and during perhaps half of this march, but we have faced throughout the march, a strong and searching northeast wind with the temperature below the freezing point.

The glacier west of Cape Fanshawe Martin is an active one; its face ten feet to forty feet high. A detached "floeberg" which I estimated to be one and one-quarter miles long, and one-half mile wide, lies frozen in a hundred yards or so off its face The face of this "floeberg" would average twenty feet to twenty-eight feet above the water Two Arctic terns flew over us while we were coming round the Cape.

McClintock Bay, July 14th.—The wind blew continuously and violently at the last camp, and the sun shone occasionally and was shining when we started.

I thought I would try the inside route, i. e. along the tidal crack well into the bay, but an hour's travelling along the glacier face, brought us to a position where I could overlook the bay, and I saw at once

that it was entirely impracticable. The surface of the bay was completely covered with large connecting lakes and wide streams.

The route along the outer edge of the ice-foot was the only way, and to reach this we were obliged to retrace our steps to camp, and were then bothered by two or three lakes, and one large river which forced us well out among the floes with their waist-deep drifts, before we could get around it. In this way we lost three hours.

After this the going was better, and the course fairly direct, the slush and water averaging only about ankle deep. One other river some fifty yards wide, with a pronounced cataract, forced us again out on to the floes.

We have travelled very slowly, however, the dogs' feet being in terrible condition from the sharp ice and constant wetting. Nearly all are fitted with boots, but still they only limp along. The gray dog was killed here, and fed to the others, together with five of the Jesup Land deerskins which there has been no chance to dry, and which are spoiling. If we don't reach Cape Alexandra it will mean another dog, as I have no more pemmican. After the first hour to-day, continuous fog.

Disraeli Bay, July 15th.—Another hell-begotten day, or rather night. Dense fog, with the sun shining through it at times, but the land invisible, was the programme at the last camp. While we were getting ready to start, portions of the land showed up, and remained visible for about one hour.

Since then dense fog with the accompaniment during the last four hours of wet snow.

The going after the first two hours was fair over old hummocky ice from which most of the snow has melted, and on which what water there is, is in small pools. In clear weather and able to see ahead, it would be good going.

Under these circumstances, I gave up the idea of sending the two men in for the Cape Alexandra cache.

We will stick to the outer edge of the foot-ice. If we can make Columbia, and get the meat there, well and good; if not, we will keep right on to Hecla and eat dog till we get there.

Two large streams negotiated to-day. One by fording, sweeping sledges down and wetting almost everything on them, the other by bridging a fortunate cañon.

My clothes are now literally rotting from the constant wet. I have got used to the disagreeableness of the wet, but not yet to the stench of the last few days, especially when in camp, and turned in.

A seal was seen out on the ice, but he went into the water before Egingwah could get near him.

A nearly complete specimen of the same fish as I found beyond Cape Alfred Ernest was also picked up to-day, but the dogs got it all except the head.

The whole width of this big glacier from Cape Alexandra west, is composed of heavy hummocky ice, which, when broken off, will form "paleocrystic" floes.

"Nungwoodie," the faithful gray dog, played out, and was killed here. Very sorry to have him go.

Two more days, or rather a continuous performance

of this infernal weather, then one decent night, and after a long forced march which killed one dog, used up another and left us practically played out, we reached the low point of Columbia, which forms Cape Aldrich, and set up the tent on dry gravel, the first time in twelve days that it had been set up in anything except slush and water.

Looking out over the ice from the tent, I saw that where we came in, unpleasant as was the going, was the only practicable place. From where we came in, clear round the point, was a wide, deep lake.

The march of the 16th was not only uncomfortable but very disappointing. Near the close of it, the fog rose a little, and showed that instead of being abreast of Cape Albert Edward as I had expected, we were barely abreast of the west end of Ward Hunt Island. Our previous march had left us two or three hours short of Cape Alexandra, and this march had been short as to distance. Three large streams bothered us, and in crossing one of them, both my men were taken off their feet, one wet all over, the other partially, and the sledge nearly swept away, all my strength just serving to hold it till they could pull themselves out by it, and then help haul it out. The white dog was fed to the others here.

At this camp the temperature fell well below the freezing point, making us distinctly uncomfortable. When we began the next march, its effect was immediately apparent. The snow and the smaller pools were now frozen firm enough to support sledge and dogs and myself, on snowshoes; the streams were less in volume, and the fog, its supply of raw material cut off

by the stoppage of evaporation, gave signs of relaxing its grip. Added to this, a considerable number of the lakes, having found an outlet, had drained off and were now mere shadows of their former selves. Matters were mending a little, though we again pitched our tent in wet snow, somewhat west of Camp Nares. The old black *Sipsu* dog was killed here.

Two large streams were negotiated in this march, one by a detour round where it poured into a crack, the other over a snow arch.

When we began the next march, the sun was breaking through the fog; when we were off the middle of Markham Bay, he had gained full victory, and from then on till afternoon, he beat down upon us in a blinding glare which burned my face and scorched my eyes in spite of my big-vizored cap.

It gave me the opportunity, however, to see the twin peaks of Columbia from the west and north, and they are a very striking sight.

After we had our tea, the men went over to the musk-ox meat which we had left on the outward trip. They were a little anxious as to whether the foxes had eaten it all or not.

They returned a few hours later, gorged, and with the information that the foxes had not disturbed the meat, and that there was more than what we left. Koolootingwah having killed two more musk-oxen here on his return. They also brought back a hare and one of Koolootingwah's dogs, which had slipped his harness and remained with the meat, and was now in fine condition. All this was very gratifying. The meat allowed me to remain here two sleeps, which

were absolutely necessary for my dogs; the fresh dog was a very welcome recruit, and I appreciated the hare as an agreeable change from the dog meat of the previous two days.

After a few hours' sleep, I went over with the men and dogs and one sledge, to feed the dogs thoroughly, bring over the remainder of the meat, and from the top of the bluff examine the ice eastward, to see what our route must be to Hecla.

Coming back over the bluffs, to our camp the orography of the glacial fringe both east and west was very strongly brought out by the streams and blue lakes which filled every depression and furrow. I took some photos, but was not sanguine as to their success. Was afraid that the blue of the lakes would not show on the photos.

There was a great deal of water between Columbia and Hecla, and the only possible route for us was along the outer rafter. Even there it did not look attractive.

After returning to the tent, I strolled over the low gravel flat which forms Cape Aldrich, and gathered a few flowers. The purple flowers were nearly over, but the poppies were in full season; there were also the potentilla, which with their bright-yellow flowers rising from the fine, deep-red runners or tentacles which radiate in every direction, form an even more striking bit of colour than the poppies. There was a great granite erratic on this point which I photographed.

After another sleep we resumed our march in a continuation of fine weather, and with the dogs feeling the effects of their rest and surfeit of meat. Following the snow bank on the west side of the point to its

extremity, and then straight out to the edge of the ice, we proceeded with considerable comfort, except for one large stream, draining Parr Bay and vicinity, which we had to ford.

The end of the march found us a little east of Gifford Peak. Two large streams were negotiated, one by fording, the other by a long detour round where it poured into a crack in the ice. The streams and lakes were much reduced in size to what they had been, and were steadily draining off.

The going was better than I anticipated. At this camp our supper and breakfast from the musk-ox meat, which had lain for some three weeks, was not over-attractive.

The next march again was in fine weather but the fog once more gained the ascendancy, and at the end of some five hours obliterated everything.

Watching intently for it, I at last made out faint traces of our trail of last spring from Pt. Moss northward, and pitching the tent a little beyond it, sent the two men in to the cache there with the sledge, to bring off some pemmican and biscuits. They missed their way in the fog, but eventually found the cache, and returned with the desired articles which were very acceptable. Three rivers were negotiated in this march.

The next march began in fog but ended in brilliant sunshine. In crossing Clements Markham inlet there were few lakes, the water taking the shape of the narrow but deep and widely ramifying pools of ordinary bay ice. Two considerable rivers we had to ford. We made the Cape Hecla land at the place where we left

the ice-foot going out, but the ice-foot was a continuous deep lake now, and we continued on the sea ice to within about one-half mile of the Hecla camp, where open water forced us on to the crest of the ice-foot ridge, which was followed to the cache. The site of our spring camp was submerged now under several feet of water, the entire ice-foot here being a large lake. Taking a few things from the cache we kept along the crest until round into James Ross Bay, then camped on the ice, being unable to get ashore though close by it.

The next evening when we started, dense fog again covered everything, but as we had the rafter edge to follow, this did not interfere very much with our progress. At Crozier Island, I found some tins marking the site of our igloo in April 1902. Beyond here the fog lifted enough to show that the overland route across Fielden Peninsula was entirely impracticable owing to the absence of snow, and that we must go round by Joseph Henry. I rather dreaded this, for I knew what the conditions were on the east side of that savage cape.

Up to within about five miles of the point of the cape, the going was much the same as across Clements Markham Inlet, with two rivers that compelled detours. Then we had three or four miles of the heaviest going on raftered sea-ice, then perhaps a mile of ice-foot. The apex of the cape was practically the same as in 1902. It required the three of us and all the dogs to each sledge to get along. As I looked back toward Hecla from the narrow ice-foot shelf at this apex, there came to me the time I first looked round it upon Hecla in April 1902, and my feelings at that time. I

had been a far cry beyond since then. A short distance beyond the apex began an ice-foot lake. The tent and camp gear we backed around this along the steep slope of the talus, pitched the tent and made supper, then the men went back after more loads, then another trip for the sledges which were floated along. Another dog played out in this march and was killed.

A long and hard day. Several fossils were observed in the rocks and at the extremity of the cape, and one was secured.

The next march, in spite of every exertion, took us only to View Point. With open water and shattered ice on one side, and the entirely impracticable ice-foot lake and Cape Henry cliffs on the other, our only possible route was the crest of the stupendous and now doubly ragged and chasm-intersected ice-foot. Along this, after I had dug out a tortuous road with a pickaxe, the sledges, one at a time, were pushed, dragged, hauled, hoisted and lowered by all of us, and sometimes unloaded and backed over the roughest places.

Then the snow slopes of the shore, interrupted with patches of bare rocks, past Hamilton Fish Peak, then the sea ice less broken here, then the shore snow, and a river and strip of bare land, over which the sledges were run on pole rollers, and finally to our camp on dry gravel at View Point, the first time this side of Columbia. An arduous march, long in time but short in distance. Fortunately the finest of weather.

Cape Joseph Henry is the most satisfying perhaps of any of these northern capes, in an æsthetic sense.

A striking vertical cliff dropping into deep water, there is no buffer between it and the heaviest floes which crash and grind against it incessantly, throwing up a stupendous ice-foot, and making the surroundings of the cape savage in the extreme throughout the entire year.

At the View Point camp, I told Egingwah he was to go on to the *Roosevelt* in the morning alone, with a letter to the Captain to send some men and dogs out to meet me; and Ooblooyah and myself, after caching one sledge and half our loads, would follow after him. Of the five dogs remaining only one could really do any work, and one was entirely useless.

Following Egingwah some two hours later, his trail was of great assistance in negotiating the cracks and pools. For perhaps three miles from camp there was such a labyrinth of these, that I feared it would take four days to reach the ship. Then the going improved, and on a direct course to Cape Richardson, we made good progress. Near the cape the ice was rotten and we kept out into the bay. Finally after wading several pools mid-thigh deep, we pitched our tent on an elevated floe about a mile west of the north end of William's Island. Still fine weather. About eight in the evening, we heard shouts, which were answered, and a little before eleven, Marvin came in with Ahwegingwah, Teddylingwah and Sigloo. Marvin told me the *Roosevelt* had broken out from winter quarters at Sheridan on the 4th of July, and had squeezed down along the shore past Cape Union when she was smashed against the ice-foot just south of the cape, tearing another blade from the propeller, and breaking off her

stern post and rudder. She was now laying at Shelter River just south of Cape Union effecting repairs.

Marvin had been unable to get north from Hecla, owing to the breaking up of the ice, and working westward had carried a valuable line of soundings along the Grant Land coast as far west as Cape Fanshawe Martin.

Captain Bartlett had made cross-sections of Robeson Channel in accordance with my instructions. Marvin and the Eskimos had come over to Sheridan to wait for me. On the arrival of Egingwah they started overland to meet us.

From my tent to the shore abreast of William's Island the going was over hummocky floes which were now a succession of hummocks and deep pools. With two inflated floats on the sledge, making a raft of it, we made nearly direct for the shore, paying no attention to pools less than hip deep. At the shore, high tide barred us with a wide strip of clear water. Search in each direction showing no practicable crossing, we resorted to the ice cake ferry-boat method, and finally gained the shore, Here we wrung out our foot-gear and each taking a back-load, started for Sheridan, leaving the sledge and other things for another trip.

This twelve mile trip was very unpleasant for me, my wet foot-gear offering little or no protection to my feet (softened by three weeks of constant soaking) from the sharp stones. I was very glad to get to the boat which had been left on the west side of the Cape Sheridan River for this purpose, and pulling along the ice-foot lake, arrived at the tent at noon, Tuesday, July 26th. Here I found that Egingwah had gone on

TYPICAL ESKIMO DOG

THE CRUSH NEAR CAPE UNION
Where the *Roosevelt* lost rudder, stern-post and part of propeller

to the ship. The two men came in a few hours later, and I turned in, glad to feel that I did not have to travel the next day. Friday morning the two men went back for the other things. In the afternoon the fine weather ceased, and it began to rain, changing to snow.

The ice-foot now was a broad, deep lake; the floebergs, which lined the bank during the winter, were gone except one or two, and their places taken by others; at each ebb-tide there was a good bit of open water outside them, but beyond this the pack was apparently unbroken. The shore was not attractive, strewn as it was with empty cans and refuse.

Saturday morning I started with Sigloo for the *Roosevelt*, lying below Cape Union.

It was very foggy, and raining a little at the time, but Sigloo was positive he knew the trail.

At the end of eight hours he was completely tangled up; and as we were only about halfway to the ship, and I did not care to be tramping all night with my feet already severely bruised and pounded by the rocks, I took a direct course back to the tent, showing Sigloo the way to the ice-foot, which he would rather follow to the *Roosevelt* than go back. At midnight I was back to the tent with my feet almost useless. (Sigloo reached the *Roosevelt* at eight the next morning.) My men had come in with the sledge and things.

The rain and snow continued. About 8 A. M. Sunday Ooblooyah and Ahwegingwah started for the *Roosevelt*; between twelve and one, eight Eskimos came in, in response to my message by Sigloo to the Captain, and at 7 P. M. I started again, this time with Pewahto, an older man than Sigloo, leaving Marvin with the

others to build a cairn, set up a cross which he had made from sledge runners, place a record, and then come on with what things were left.

I had given my feet complete rest since my return from the previous attempt, and had fixed my foot-gear in every way I could think of, including a pair of heavy tin inner soles, but my feet were still very tender, and I dreaded the tramp, and wished it over. At 7 P. M. I started, and anxious to have it over as soon as possible, set my teeth and struck a good pace. One thing was in my favour, it was clear now and I should have to do no unnecessary travelling. At 3 A. M. Monday, July 30th, I looked down on the *Roosevelt* from the bluffs, and at 3:30 I climbed over her side, a boat having brought me from the shore, thus ending my western trip of fifty-eight days. Between the 23d of February and the 30th of July, I had been on board ship eight days.

My kamiks were cut through, my tin soles broken in dozens of pieces, and my feet were hot, aching, and throbbing, till the pain reached to my knees.

Within the next twelve hours Marvin and the rest of the Eskimos came in, and the western trip was ended.

The results of this trip had been particularly gratifying to me in its closing of the gap in the coast line between Aldrich's and Sverdrup's "Farthest," which was the main object of the trip; in its determination of a new land to the northwest, and in its development of what, I am satisfied, when the facts in regard to it are known, will form one of the most unique and interesting features of this region to the glacialist, namely

SIPSU AND HIS FAMILY

Returning to the ship from Fort Conger

THE "ROOSEVELT" FORCED AGROUND IN WRANGEL BAY

THE "ROOSEVELT" IN WRANGEL BAY

the broad glacial fringe of the Grant Land coast from Hecla westward.

The fact that the pleasure of the trip and of these results was at least temporarily considerably dampened by the extremely unpleasant features of the return journey, is only the usual occurrence in all Arctic work.

CAPE SHERIDAN TO ETAH

CHAPTER XII

SHERIDAN TO ETAH

JULY 30th and 31st the weather was fine, the channel pack surging back and forth with the tides close alongside, and every now and then large pieces crowding in against us, necessitating shifting the *Roosevelt* by the lines to avoid them. The channel pack consisted of very large floes packed closely together and showing no signs of leads throughout the entire width of the channel and as far north and south as could be seen. The ship's people assisted by the Eskimos worked night and day to complete the finishing touches to the new rudder so that we could take advantage of the first opportunity to get away from this exposed and dangerous position. From the Captain I learned the story of the *Roosevelt's* experiences after the ice opened at Cape Sheridan. She had had a crucial trial which few if any other ships would have survived, and twice everything had been landed from her in the belief that she would never leave her present position.

The Captain was enthusiastic over the model of the ship and the ease with which she rose when nipped.

The Chief was enthusiastic about the size and strength of her shaft which at one time during the nip that did her so much damage, held the entire weight of the after part of the ship.

About 6 A. M. of the 31st, the ice loosened close along the ice-foot towards Lincoln Bay, but before our lines could be cast off it had closed in again. From here I sent five Eskimos across overland after the skins of some musk-oxen which had been killed earlier in the season. About breakfast time Sipsu and his wife came in from Conger. He was dressed out in cavalry officer's uniform, and he and his wife and his one dog were loaded with pots and pans and packs and bundles of every description till they looked like a troupe of tramp pedlars.

At 5 P. M. the ice eased off along the ice-foot again and we got under way. The *Roosevelt* was very light and in excellent trim for escaping a nip, but she was leaking a good deal about the stern, and her twisted sternpost made her very difficult to steer. After running into the ice-foot two or three times she managed to work her way around the point into Lincoln Bay, along its north shore to its head, and across to the south side where she was made fast in a comparatively sheltered place. Her position was a vast improvement upon her previous one where the caprice of a big floe might at any moment force her high and dry on the shore. As soon as we were fast, I sent one man back to Shelter River to wait the return of the five men, five others out after hare, and two others south to assist Ootah, the other Conger Eskimo who was in camp at Shift Rudder Bay, his wife having given birth to a boy while *en route* to the ship. Here for the first time since June 1st, I undressed and went to bed like a civilised man. It seemed a bit strange. At 2 P. M. we got under way again (one of the crew enlivening

this occasion by falling overboard and narrowly escaping drowning), and worked along the ice-foot to the northern point of Wrangel Bay. Here a floe several miles in diameter delayed us for an hour or more until it moved enough for us to squeeze between it and the point into the bay which was full of slack ice. Forcing a way through this into the head of the bay, we dropped anchor in water so shoal that it was thought it would keep all heavy pieces of ice away from us. I was very glad to reach the shelter of this bay. The stretch of coast between Wrangel and Lincoln bays is one of the worst places in this region for a ship to be caught. The *Roosevelt* steered a little better than the day before, but it still required very careful management to get her along.

The ice offered no opportunity for leaving the bay during the 2d, and about midnight it filled the bay so completely that it forced the *Roosevelt* ashore. She was pulled off during the 3d, but was again pushed ashore late in the evening. All the Eskimos including the family from Shift Rudder Bay came in on this date. Very early on the 4th an unsuccessful attempt was made to get around Cape Beechy, the ice crowding in upon us and compelling the *Roosevelt* to retreat at full speed. During the 5th we remained inactive, the ice densely packed everywhere. During the night of the 5th a reconnaissance from the peak of Cape Frederick VIII showed water under the Greenland shore and early in the morning of the 6th, the *Roosevelt* for the third time essayed the crossing of Robeson Channel through the dense pack, this time heading for Thank God Harbour. The ice encountered was very heavy,

but the *Roosevelt* kept moving slowly until about 2 A. M. of the 7th, when she was somewhat east of the middle of the channel and a little south of Cape Beechy. At this time the ice ran together with the turn of the tide preventing further movement, so we made fast to a big floe and began drifting southward with the pack. Soundings in the centre of the channel gave depths of from 298 to 339 fathoms. During the 7th, 8th, and 9th we drifted southward, and some big floes jamming across the channel from Cape Lieber to Joe Island, we were shunted into the mouth of Lady Franklin Bay on a line between Cape Baird and Discovery Harbour.

Here we remained without motion for eight days, parties of Eskimos going ashore every day both to Cape Baird and Distant Cape and Bellot Island. These hunting parties secured some hare, a square flipper seal, a common seal and on two or three occasions came near getting a narwhal.

On the morning of the 18th the ice in which we were imprisoned began to set into the bay again, doubtless owing to pressure from the northward. This motion continued throughout the day, and, toward midnight the *Roosevelt* was subjected to severe pressure which forced her up on to the heavy floe to which we were moored, twisted her stern post over to the port side, and for a time threatened to tear another blade from her propeller. We were now in the centre of the Bay about six miles inside of Cape Baird, and opposite the western entrance of Discovery Harbour. Motion continued during the 19th, and at night the *Roosevelt* was again subjected to pressures, which increased the leak

ESKIMO FAMILY GOING ASHORE AT LADY FRANKLIN BAY FOR WINTER AT FORT CONGER

and it was necessary to keep the pumps going continually. In this new position we remained motionless until the 24th. During this time the hunting parties to the shore were continued, obtaining more hare, two additional square flipper seals, one common seal, and nine musk-oxen. Eight families of the Eskimos also, who believed that the *Roosevelt* would not get south this season, went ashore with all their belongings in order to begin hunting for their winter food supply as soon as possible. I was not at all sorry to have them go and fitted them out with guns and ammunition, for if we did get away they and their families would be so many less to look out for during the southern voyage, and if we did not, their work ashore would count toward the winter supplies of the entire party.

I confess that, though not admitting it, I was myself doubtful as to our escape as the days wore along. The *Alert* and *Discovery* got away from Discovery Harbour August 20th, and the *Proteus* on the 26th and they were much nearer to possible avenues of escape than we, located as we were in the depths of the bay. The weather and our surroundings also reminded me altogether too strongly of our experience at Cape D'Urville in 1898.

The outlook for our escape became so doubtful that I made plans for another year's enforced delay, the programme contemplating the scouting of the entire region from Cape Desfosse to Lincoln Bay, and west through the drainage basin of Lake Hazen, by several hunting parties working simultaneously; and the establishment of colonies at Conger, Lake Hazen, and the head of Archer Fiord.

About noon of the 24th the ice slackened a trifle, and we were able to work about three miles toward Cape Baird, then the ice and the fog both shut down on us. After this we drifted eastward very slowly until midnight, remained motionless during the 25th, and on the 26th lost it all and settled back into the bay again. At 4 A. M. of the 27th, a very light air out of Lady Franklin Bay began to drift us almost imperceptibly eastward. At 5:30 the ice slackened slightly, and we began to hammer our way eastward for freedom and th water under the Greenland shore, At first progress was fearfully slow, but improved later and we worked across toward Cape Tyson, then rounding an enormous floe were able to work down along its eastern side and squeeze between it and Joe Island.

Whatever else might be in store for us there was no longer any danger that we would be pocketed in Lady Franklin Bay for another year, or that we would be smashed against the savage cliffs that line the shore of Daly Peninsula from Cape Lieber to Cape Desfosse. From this time the *Roosevelt* made very satisfactory progress until 6 A. M. of the 29th when she was stopped by impenetrable ice south and east of Hayes Point.

From Joe Island to Hans Island our course lay close to the Greenland shore among very large and heavy floes. We passed east of Hans Island, and from Hans Island to Cape Calhoun had practically open water. From Cape Calhoun until we came to a stop heavy floes were encountered again, becoming more and more closely packed as we advanced. While passing Franklin and Crozier Islands a fresh northeasterly wind enabled us to set foresail, mizzenspencer, and

BRINGING THE BEAR TO THE SHIP

SITTING FOR HIS PHOTOGRAPH, WITH KOOLOOTINGWAH, PEWAHTOO, AND TEDDYLINGWAH

POLAR BEAR KILLED IN KANE BASIN

THE SHIP BEACHED FOR REPAIRS AT THE HEAD OF ETAH FIORD

forestaysails, and for a little while gave the *Roosevelt* a speed of ten knots. From the afternoon of the 29th until 6 P. M. of September 5th we were unable to move, the ice which held us drifting slowly but steadily to the southwest and packing against Bache Peninsula and into Buchanan and Princess Marie bays. During most of this time the weather was fine and numbers of seals were observed upon the ice, several of which the Eskimos secured.

In the evening of the 8th, the ice slackened to the southeast, I abandoned the idea of picking up my Victoria Head Depot, and the *Roosevelt* was headed for Cairn Point on the Greenland coast. From the evening of September 5th until midnight of September 7th, we were able to make intermittent runs of a few hours duration, the sum total of which placed us somewhat more than half across Kane Basin. During the 8th, 9th, 10th, and 11th we lay imprisoned among very heavy old floes close to a group of four icebergs, a position which caused me considerable uneasiness, particularly as a strong southerly gale was blowing during two days of the time.

At 7 P. M. of the 11th we made another short run and during the five following days we worked southeastward at every opportunity, gaining a mile or two at almost every tide, then being nipped and crowded (wedged is the better word, perhaps) southwestward toward Sabine, by some huge field of ice forging down along the Greenland coast.

The weather was getting very sharp now, the young ice formed and became extremely tough with great rapidity, and while this time I had at heart no doubt

of our eventual escape unless some unforeseen event occurred, still the lateness of the season and our surroundings were such as to make a repetition of the *Polaris's* experience, and a winter's drift in the pack by no means impossible.

The unforeseen contingency seemed to have arrived when it was reported on the 14th that the propeller was loose, and if we did any backing we would lose it. Such a loss would of course mean a certainty of wintering in the pack. Much to my relief an examination of the propeller showed that only the nuts holding the blades in place were loose, and these after nearly two days of effort were with much difficulty tightened up, and this danger, for a time at least, averted. During the night of the 14th a floe not less than eight or ten miles in diameter, crowding south on the ebb-tide, wedged us and the ice about us over to within ten miles of Cape Sabine. In return, however, for this apparent injury it gave us a bear, the first seen by the Expedition, and left along its northern edge a line of cleavage through which we were able to butt and squeeze a passage eastward once more, and reach a series of areas of young ice from three to five inches in thickness. To many a ship this ice would have been as impracticable as the heavy floes through which we had been working; but to the fine bow of the *Roosevelt*, which Captain Dix had so carefully moulded, it proved no obstacle, and she walked steadily through it in spite of her crippled propeller and reduced boiler power.

And when after rounding the northeastern angle of the floe and heading more to the south, it was possible to set the sails to the fresh northerly wind, she trod

the ice under her fore-foot with a steady roar at a four or five knot pace. Finally after one or two temporary delays where the corners of big floes locked together, the ship, at 4 A. M. of the 16th, pushed her nose into open water somewhat north of Littleton Island and steamed into Etah, thus ending a most gallant battle with the ice which had begun on July 4th and lasted for seventy-five days.

During the crossing of Kane Basin six seals, one bearded seal, two hood seals, and one polar bear were obtained. Soundings made by Marvin at various points across the basin, showed a very regular bottom, and depths much less than in Robeson and Kennedy Channels or between Sabine and Littleton Island. These soundings ranged from 101 to 139 fathoms.

At Etah I found not only the Eskimo families whom I had transplanted there the summer before, but others who had come since with a view to meeting the ship on her return. They had given up hopes of our return this season until some three days previous when active old Ahmah, Merktoshah's wife, walking overland to Anoritok had seen our smoke far out in Kane Basin. From these natives I learned that the season had been an unusual one, the ice everywhere remaining until very late. As soon as we arrived the heavy anchor and cable which we had left here the year before were taken on board, and Captain Bartlett reconnoitred several places in the vicinity looking for a suitable place to beach the *Roosevelt* and repair her stern and propeller. Nothing satisfactory was found and we steamed up to the head of the fiord in the northeast corner of which was a place that could

be made to do. Here the stern of the *Roosevelt* was warped close inshore at high tide, and during the next few tides the stern was calked, the stern post, which had been twisted back and forth by the ice so many times that it was now only a menace to the propeller. was cut away, and the nuts fastening the propeller-blades set up again. Some ballast was also taken on board between times. During all this time the wind was blowing strongly from the north and Smith Sound seen out through the mouth of the fiord was a cauldron of whirling clouds, fog and snow. When this work was completed we steamed back to Etah and took on board the coal. This work was greatly hampered first by the strong wind which on one trip swamped our boat raft, and afterwards by the young ice through which it was at times almost impossible to warp the raft back and forth between the ship and the shore. The lower portion of the coal also was frozen and had to be loosened with dynamite. Late in the evening of the 20th, the *Roosevelt* steamed out of Etah leaving about half of my Eskimos there.

ETAH TO NEW YORK

VIEW OF THE STERN

ESKIMO HOUSES AT KOOKAN

CHAPTER XIII

ETAH TO NEW YORK

AS WE left Etah loose ice was streaming down past the mouth of the fiord. Cape Alexander was reached at midnight and the *Roosevelt* headed for Cape Isabella to run a line of soundings across Smith Sound as far as the ice would permit. About ten miles from Alexander the solid edge of the ice was encountered extending unbroken from there to the Ellesmere Land shore. This ice was very heavy and appeared to have no cracks or openings in it. The sounding here was 438 fathoms. The *Roosevelt* then headed away for Cape Chalon steaming around a point of the pack which reached nearly in to the Greenland shore above Sonntag Bay. Steaming into Whale Sound, which was filled with icebergs, fragments of ice and sheets of newly formed young ice, numbers of walrus were seen and ten secured, though with great difficulty as the young ice made it almost impossible to approach them. We then steamed into Kookan to land more of my Eskimos, and the anchor was hardly down off the delta of the stream, when a large sheet of comparatively heavy young ice drove against us and pushed the *Roosevelt's* stern ashore almost at the crest of high water.

This extremely annoying incident held us here until the following noon, but the occurrence was turned to

account by additional calking of the stern and again tightening and this time wedging the bolts of the propeller blades. Steaming out from Kookan the tough young ice now several inches in thickness, retarded our progress seriously for some three miles. As we got out of the bay it became less dense. Heading for the passage between Herbert and Northumberland islands, six walrus of those that were directly on our route were secured and passing between the islands, we steamed for Cape Parry. Off this cape we got out of the young ice entirely, and steamed southward in open water. Another contingent of my Eskimos wishing to be landed at Oomunui on the south side of Wolstenholm Sound, we steamed in behind Saunders Island securing six large bull walrus. Young ice of too great thickness for us to penetrate, prevented our reaching Oomunui and an attempt was made to land the Eskimo at Narksami between Oomunui and Cape Athol. The anchor was dropped off this place but the movement and thickness of the young ice was such that I did not think it advisable to delay here even for an hour, and the anchor was immediately hoisted again and we forged slowly out through young ice which required all the power we could summon to negotiate it.

The nights now were very dark. Off Cape Athol we got free of the young ice again, and steaming south in open water, were off Cape Dudley Diggs early the following morning and steamed into Parker Snow Bay to land the last of my Eskimos. This day was a perfect one of brilliant sunshine and pronounced warmth. The Eskimos worked with a will landing

CAPE YORK, 76° NORTH LATITUDE

Northern limit of Melville Bay and most southerly settlement of the Whale Sound Eskimos

HANGING OUR NEW RUDDER AT HOPEDALE

SAWING WOOD TO FEED THE FURNACES ALONG THE LABRADOR COAST

their belongings, their dogs, and the walrus meat which I had secured for the purpose of carrying them through the winter, as I was bringing them back at the close of the hunting season when they could hope to secure only a scanty supply of food before the winter set in. By night everything was landed, and several tents set up on the shore. As the darkness came down it began to snow, accompanied by light wind from the southeast. In the morning the whole country was white with snow and a vicious southeaster in progress which held us here until the following morning. This time was occupied in getting the *Roosevelt* ready for rough water. From Cape Union to here all provisions, ammunition and equipment of all kinds had been carried on deck ready to be thrown ashore or out upon the ice whenever the necessity arose. This deck load was now transferred to the hold, and the ship generally put in better trim for the mauling which we were sure to receive at this season of the year once we got clear of the ice. As soon as the weather moderated sufficiently we steamed to Cape York where four families were found. Here we made fast to the newly formed land ice and remained three or four hours while repairing a bent eccentric. The natives here reported that the ice in Melville Bay had gone out but a short time previous, and during the entire season no ship had been able to approach the Cape, an occurrence which has not happened before since my acquaintance with this region, dating back to 1891.

Leaving Cape York late in the afternoon of the 26th, in a dense snowstorm, which doubled the gloom

of the already descending night, we groped our way in almost complete darkness out through the numerous icebergs, and felt that we had really begun the homeward voyage. The darkness during this night was so intense that we slowed down to half-speed. The following afternoon a fresh breeze accompanied by a heavy swell set in from the southeast, and the rolling of the ship washed out some ashes in the fire-room, clogging the suctions of all the pumps, and allowing the water in the fire-room to rise to the stoke-hole plates before it was noticed. During the next two days the *Roosevelt* was hove-to while the fire-room was cleared of water, the pumps overhauled and got in commission again, and steps taken to prevent a recurrence of the trouble. During this time the weather remained thick and the wind continued from the southeast. When we got under way it was impracticable to make the Greenland coast and we continued down the middle of Baffin's Bay. At midnight of September 30th we rounded the end of the middle pack and in the afternoon of October 1st, in a fresh southeast breeze and heavy swell, the fore-topmast broke off at the springstay, and went overboard carrying with it the topmast rigging, barrel, and flying jib. October 3d we made the west coast just above Cape Dyer and followed it past Walsingham and Mercy, and across the mouth of Cumberland Sound, until 4 A. M. of the 6th, when about seven miles north of Monumental Island, a sea striking under the starboard quarter broke the rudder-stock square off, rendering us helpless.

It was very thick at the time and the *Roosevelt*

was hove-to heading eastward to avoid being drifted upon the ragged coast about Cape Haven. A spar was got ready and rigged out as a jury rudder, but we were scarcely under way again when the wind came on from the northeast, and in two or three hours the rising sea had carried away the improvised rudder. After this we hove-to again, the storm increasing to almost hurricane violence for some thirty-six hours and raising a heavy sea. The *Roosevelt* proved herself a fine sea boat, lying to under double-reefed foresail with the same ease as one of the best of our Banks fishing schooners, and though she repeatedly rolled her rail to the water, she did not ship a bucketful of green sea.

With the slackening of the gale followed some twenty-four hours of chop sea off the mouth of Hudson Strait and work was commenced on a second rudder which, after two days of work under extreme difficulties, was finally completed and hung, the men being flung back and forth across the deck as they worked. The next day we made the Labrador coast at what is perhaps the worst locality in its northern portion, known as the Pot Rocks. Threading our way through these in fog and driving snow, with the breakers on either side, we kept off the coast and had no distinct view of it until the 13th, when it could be seen clearly enough for us to determine that we were just north of Sagdlek Bay. As we were now entirely out of water and had but a few tons of coal left, I determined to put into Hebron in hopes that we might secure a few tons of coal there. Darkness fell while we were still several miles from Hebron, but Captain Bartlett had been there some years before

and he skilfully worked the ship through the crooked channels to her anchorage. No coal was to be had here but we obtained water and a few essential supplies, and early Monday morning started for Nain, taking the inside passage from Cape Mugford with which Captain Bartlett fortunately was familiar. Lying-to during the night we reached Nain shortly after noon the following day.

Here some wood and a little blubber and two or three tons of coal-dust were obtained after much delay, due to heavy squalls which prevented the passage of boats from the ship to the shore. These squalls were so violent that they tore one of our boats loose and drifted it away. The Eskimo women here did all the work of loading and unloading the wood.

Still following the inside route, we proceeded to Hopedale where more wood was obtained, and more delay experienced from heavy wind. The second night the squalls were so violent that even in the inner harbour the *Roosevelt* dragged both anchors and went aground; coming off easily, however, at the next high tide.

On leaving the harbour the ship was found to be so light that in the fresh northwester then blowing she would not answer her helm. Both anchors were let go and when at night the wind moderated, she worked back into the harbour where she was beached, rudder hoisted out and rebuilt, the stern recalked, natives employed to bring ballast and work the pumps, while we awaited the arrival of the mail steamer to secure coal, without which I did not think it advisable to proceed farther along this coast at this

HULDA A LABRADOR ESKIMO GIRL AT NAIN

HOPEDALE

Moravian missionary station on the Labrador coast

season of the year with the *Roosevelt* in her present condition.

On the arrival of the mail steamer seven tons of coal were secured with which in snowstorms and head winds except for the last few miles, still following the inside passage through the intricacies of which Bartlett handled the ship with masterly skill, we reached the whaling station at Hawke's Harbour and secured two more tons which brought us to Battle Harbour, where we arrived in the evening of November 2d.

The following day forty tons of coal were taken on board and while the work was in progress a southeaster set in accompanied by rain. From this time until the 12th, the wind continued heavy from southeast, east, and northeast, accompanied by rain, snow, generally thick weather and a heavy sea. The 12th was a clear day but the sea heaving into the narrow and tortuous entrance to the harbour, made it inexpedient to attempt to go out. On the 13th another southeaster set in with driving snow but the sea was down for a few hours and advantage was taken of this to steam round into Assizes Harbour, which affords good shelter. The entire time of our stay in Battle Harbour was a period of continuous anxiety and efforts to keep the ship from being driven ashore by the violent undertow which makes this harbour the worst on the Labrador coast when any sea is running.

During this time the *Roosevelt* was moored as follows: on the port bow our heaviest anchor and cable let go in the middle of the harbour, a heavy chain-cable attached to a ring-bolt on shore, and a 4-inch line; on the port quarter two 6-inch manila hawsers

and a ¾-inch diameter steel-wire cable; on the starboard bow our 1¼-inch light-house-test chain cable made fast to a projection of the solid ledge on shore, and two 4-inch manila lines; on the starboard side of the waist four 3½-inch lines; on the starboard quarter four 3½-inch lines, and a chain cable attached to a ring-bolt ashore.

With all these moorings the ship surged back and forth so violently as to break several of the smaller lines, tear out two of the ring-bolts let into the rocks, and break off the stock of our 2,200-pound anchor.

Bartlett's unremitting efforts, however, kept her from going ashore. Each mooring as it parted was replaced by another in spite of every difficulty.

From Battle Harbour, the voyage was a series of head winds and sea and innumerable delays of one kind and another.

At early dawn of November 23d the *Roosevelt* steamed into Sydney harbour and dropped anchor, over four months and a half from Cape Sheridan.

This homeward voyage was the most wearing and annoying part of the entire expedition, compensated for, in part at least, by the return of every member of the expedition in as good or better condition than at starting and the return of the ship with injuries of but a temporary nature.

From Sydney, the ship as the weather permitted crept down the coast arriving in New York Harbour Christmas Eve.

The relations of the personnel of the party were particularly happy. Personally, I never spent a year in the Arctic regions so entirely free from the petty

OOBLOOYAH

Young Eskimo man of about twenty-three

A GROUP OF ESKIMO WOMEN

annoyances and friction which are usually a most disagreeable feature of an Arctic expedition. Captain Bartlett proved himself invaluable and was unsparing of himself in his efforts for the success of the expedition and the safety of the *Roosevelt*. Chief Engineer Wardwell, from the time of the failure of our water-tube boilers, two days out from Sydney, had a particularly trying and difficult time, and found the fullest scope for all his ingenuity and resources.

Dr. Wolf looked after the health of the expedition with unremitting care and skill and there was no serious illness. The Doctor also did his full share of the spring sledge work.

Mr. Marvin, while on board ship and during the winter hunting in the interior and throughout the spring and summer sledging campaigns assumed his full share of the work. Henson, and Percy, my steward, tried in years of Arctic experience, again proved their worth.

The officers and men were interested and willing. Mate Bartlett was in charge of the *Roosevelt* during the absence of Captain Bartlett and myself. Boatswain Murphy was of material assistance in the field. Two of the firemen, Clark of Massachusetts, and Ryan of Newfoundland, took an active part in the spring sledge work.

The *Roosevelt* was very effective even with her reduced power, forcing her way through the heaviest ice and apparently impassable places, and coming safely through experiences which I am satisfied no other ship afloat would have survived. Young ice, even of very considerable thickness, she trod under

her with great facility, and under serious pressures she rose readily and easily.

As a sea boat she was equally satisfactory, lying to in the October North Atlantic gale off Resolution Island rudderless under double-reefed foresail, with all the ease and dryness of one of our best Banks fishing schooners. For this the fullest credit is due her builder, Captain Chas. B. Dix, who put his whole heart and years of experience into her construction.

The main results of the Expedition may be summarised as follows:

First.—The attainment of the "highest North" leaving a distance of but 174 nautical miles yet to be conquered this side of the Pole, narrowing the unknown area between my highest and Cagni's to less than 381 miles, and throwing the major remaining unknown Arctic area into the region between the Pole and Bering Strait.

Second.—The determination of the existence of a distant new land northwest of the northwestern part of Grant Land, probably an island in the westerly extension of the North American archipelago.

Third.—The distinct widening of our horizon as regards ice and other conditions in the western half of the central Polar Sea.

Fourth.—The traversing and delineation of the unknown coast between Aldrich's farthest west in 1876, and Sverdrup's farthest north in 1902.

Fifth.—The determination of the unique glacial fringe and floeberg nursery of the Grant Land coast.

Tidal and meteorological observations have been made, soundings taken in the Smith Sound outlet of

the Polar Sea, also along the north coast of Grant Land, and samples of the bottom secured; the existence of considerable numbers of the Arctic reindeer in the most northern lands determined; the range of the musk-ox widened and defined, a new comparative census of the Whale Sound Eskimos made, etc., etc.

It seems proper also to note that the result of the last Expedition of the Peary Arctic Club has been to simplify the attainment of the Pole fifty per cent.; to accentuate the fact that man and the Eskimo dog are the only two mechanisms capable of meeting all the various contingencies of serious Arctic work, and that the American route to the Pole and the methods and equipment used remain the most practicable for attaining that object.

Had the winter of 1905 to 1906 been a normal season in the Arctic regions and not, as it was, a particularly open one, there is not a member of the Expedition who doubts that we would have attained the Pole.

And had I known before leaving the land what actual conditions were to the northward, as I know now, I could have so modified my route and my disposition of sledges that I believe we could have reached the Pole even in spite of the open season.

Another expedition, following in my steps, and profiting by my experience, can not only attain the Pole, but can secure the other remaining principal desiderata in the central Arctic Sea, namely, a line of deep-sea soundings from the north shore of Grant Land to the Pole, and the delineation of the unknown gap in the northeast coast-line of Greenland from Cape Morris Jesup southward to Cape Bismarck. This work can be

accomplished by an expedition absent for the same length of time as the last one, and with a lesser expenditure.

It must be borne constantly in mind that the expedition which has accomplished this work, has been the expedition of the Peary Arctic Club, and that all results are due entirely to the generosity and public spirit of the members of that Club, and particularly to the unfailing interest and unflagging efforts of its President, Morris K. Jesup.

THE PEARY ARCTIC CLUB

CHAPTER XIV

THE PEARY ARCTIC CLUB

"To reach the Farthest Northern Point on the Western Hemisphere; to Promote and Maintain Exploration of the Polar Regions."

1898-1902

THE history of The Peary Arctic Club divides itself, first, into that of the subscribers sustaining the 1898–1902 Expeditions, and second, of the incorporators of the Club, in 1904, under the laws of the State of New York. The subscribers met for the first time at No. 44 Pine Street, N. Y., Jan. 29, 1899, and having before them Commander Peary's letters and reports from Etah, North Greenland, Aug. 12, 1898, adopted the name of "The Peary Arctic Club" and a Constitution, setting forth that "the objects of the Club are to promote and encourage explorations of the Polar regions, as set forth in Lieutenant R. E. Peary's letter dated January 14, 1897, and to assist him in securing additional information regarding the geography of the same; to receive and collect such objects of scientific interest or otherwise as may be obtainable through Lieutenant Peary's present expedition or other expeditions of like nature; to receive, collect and keep on file narratives and manuscripts relative to Arctic explorations; to preserve such records and keep such accounts as may be neces-

sary for the purpose of the association; and further to command in its work the resources of mutual acquaintance and social intercourse;" declaring that contributors to the expedition, including those absent, were Founders of the Club and elected the following officers: President, Morris K. Jesup; Vice-President, Frederick E. Hyde; Treasurer, Henry W. Cannon; Secretary, Herbert L. Bridgman. Alfred C. Harmsworth (Lord Northcliffe) was elected an Honorary Member of the Club in recognition of his gift of the *Windward* to Commander Peary.

The Club despatched the steamer *Diana*, Captain Samuel W. Bartlett of St. John, N. F., in command of its Secretary, H. L. Bridgman, from Sydney, C. B., on July 27, 1899, whither she returned on September 15th, having in the meantime successfully accomplished her mission in depositing at Etah her stores, effecting a junction with Commander Peary at Etah on August 12th, and returning with her consort, the *Windward*, which had wintered at Cape D'Urville, Ellesmere Land. The *Windward*, preceding the *Diana* one week in her departure from Etah, arrived at Brigus, N. F., two days earlier, having on board the scientific records and personal effects of each officer and man of the Lady Franklin Bay Expedition; the sextant abandoned in 1876 by Lieutenant, now Rear-Admiral, Albert Beaumont, R. N. at Cape Britannia, Greenland, and copies of the Nares-Markham records from the cairns of Norman Lockyer and Washington Irving islands, all recovered by Commander Peary in 1898 and 1899. The personal effects were subsequently distributed by the Club to the survivors and next of kin of the deceased, and the

relics of the Royal Navy deposited, through the Lords of the Admiralty in the Royal Naval Museum, at Greenwich.

The Club sent the *Windward*, repaired and improved and in command of Captain Samuel W. Bartlett, North in the following year, 1900, with Mrs. Peary and Marie Ahnighito Peary on board, leaving Sydney, C. B., on July 21st, with instructions to proceed to Etah, and failing to find there Commander Peary, to cross Smith Sound to Cape Sabine and press forward as far as might be necessary to open communication with him. The *Windward* failing to return, the Club in 1901 chartered the *Erik*, and despatched her in command of Secretary Bridgman from Sydney, C. B., July 18th, with instructions to proceed first to Etah, and then to act as circumstances suggested. The *Erik* arrived at Etah on August 5th, where Commander Peary and the *Windward* were found, all on board well, the ship having wintered in Payer Harbour under Cape Sabine, where she was joined on May 6th, by Commander Peary from Fort Conger. The *Erik* and *Windward*, after the greater part of August in the north waters, returned, the former to Sydney, C. B., September 15th, with Commander Peary's report of his delineation in 1900 of the northern end of Greenland, and Lockwood and Brainard's original record from their cairn in 1882 at their farthest, and the *Windward* to Brigus, September 24th.

New boilers and engines having been installed in the *Windward*, she sailed a third time for the North from Sydney, C. B., July 20th, 1902, with Mrs. and Miss Peary on board; effected a junction with Commander Peary on August 5th at Cape Sabine; and, after a stay of less

than a day, brought away the expedition with the record of 84.17 North (the highest on the Western Continent), in May, 1902. The party, library, instruments, and all the remaining equipment of the Lady Franklin Bay Expedition arrived at Sydney, C. B., September 5th.

The founders of the Club were: Morris K. Jesup, Henry W. Cannon, James J. Hill, John M. Flagler, Frederick E. Hyde, E. C. Benedict, H. Hayden Sands, A. A. Raven, Henry Parish, Eben B. Thomas, James M. Constable, Herbert L. Bridgman, Henry H. Benedict, and Eliphalet W. Bliss.

Full contributing members, Edward G. Wyckoff and Clarence W. Wyckoff, of Ithaca, N. Y., and Grant B. Schley, of New York, were in 1899 elected to membership in the club, and President Charles P. Daly, of the American Geographical Society, to its executive committee, in recognition of the contribution by the Society.

1904–190–(?)

The Charter of the Peary Arctic Club, April 19, 1904, recites that the objects of the incorporation are "to aid and assist in forming and maintaining certain expeditions to be placed under Commander Robert E. Peary, U. S. N., with the object of continuing his explorations of the Polar Regions and completing the geographical data of the same, receiving and collecting such objects of scientific interest as may be obtainable through such expeditions; collecting, receiving, and preserving narratives and manuscripts relating to Arctic explorations in general; soliciting and adminis-

tering funds for the maintenance of such expeditions, and, in general, providing funds for Commander Peary's efforts to reach the farthest northern point on the Western Hemisphere, and to coöperate with any other association for the same purpose," and names as incorporators:

Morris K. Jesup	John A. Flagler
Anton A. Raven	Henry Parish
Herbert L. Bridgman	Robert E. Peary

Immediately upon incorporation, the Club addressed itself to the construction of a ship for its work, plans for which were designed, based upon the experience of former expeditions of Commander Peary. Contracts were made with the late Captain Charles B. Dix of Bucksport, Me., where her keel was laid October 15, 1904, and the ship launched and christened *Roosevelt* by Mrs. Peary, March 23, 1905. Installation of machinery at Portland occupied the next two months, and early in July, the *Roosevelt* arrived under her own steam at New York, whence in July of that year, she was despatched to the North, paying President Jesup of the Club a parting call at Bar Harbour, Me. On arriving at Sydney, C. B., Captain Robert A. Bartlett assumed command and on July 26th she departed for the North. The auxiliary collier *Erik* accompanied the *Roosevelt* as far as Etah, whence on August 16, 1905, the *Roosevelt* began her battle with the ice, and the *Erik* returned to St. Johns, N. F.

The subsequent movements of the Club's expedition are contained in the preceding pages.

The list of the contributors to the present Peary Arctic Club is as follows:

Appalachian Mountain Club
Archer, George A.
Bellows, H. M.
Bement, L. C.
Benedict, H. H.
Benjamin, Julian A.
Berri, William
Bourne, F. G.
Bridgman, Herbert L.
Brockway, R. M.
Bryant, Henry G.
Cannon, H. W.
Chamberlain, Leander
Cheney, Mrs. Charles P.
Church, Alfred W.
Clapp, Henry Lyman
Clarkson, Banyer
Close, Frances H.
Colgate, Jas. C.
Coolidge, J. R.
Crane, Zenas
Crocker, George
Delafield, L. L.
Dodge, Cleveland H.
Doughty, Ella
Drexel, Mrs. Joseph
Ford, Simeon
Geographical Society, American
Gilder, R. W.
Heilprin, A.
Hobson, Richmond P.
Holbrook, L.
Hubbard, Thomas H.
Huntington, A. M.
Huyler, John S.
Jesup, Mrs. Morris K.
Jesup, Morris K.
Jones, Walter R. T.
Kerr, W.
Kimball, A. R.
Kinnicutt, Dr. and Mrs.
Kleybolte, Rudolph
Knapp, Dr. Herman
Low, William G.
Merrill, Fullerton
Mitchell, S. Weir
Moss, Charles H.
Noyes, Henry T., Jr.
Parish, Henry
Parsons, John E.
Perkins, W. H.
Phillips, Dr. John C.
Pyne, M. Taylor
Rae, Samuel
Raven, Anton A.
Reynolds, Edward C.
Robbins, Chandler
Robbins, Harriet L.
Schieren, Charles A.
Schiff, Jacob H.
Schiff, Mortimer L.
Schott, C. M., Jr.
Smith, J. H.
Squires, Grant
Torrance, H.
Trevor, John S.
Upton, Frank S.
Vaill, D. L.
Van Post, H. C.
Victor, J. A.,
Wallace, D. H.
Ward, Joseph M.
Williams, G. A.

H. L. Bridgman, Secretary and Treasurer,
Peary Arctic Club.

MONTHLY MEANS OF BAROMETRIC READINGS AT CAPE SHERIDAN, 1905-1906

(Regular barometric readings were taken at 7 A. M., 2 P. M., and 9 P. M. daily)

Mean for 27 days in August, 1905	29.920°F.
" " " " " September, 1905	29.848 "
" " " " " October, 1905	30.122 "
" " " " " November, 1905	29.897 "
" " " " " December, 1905	29.796 "
" " " " " January, 1906	30.012 "
" " " " " February, 1906	29.955 "
" " " " " March, 1906	30.035 "
" " " " " April, 1906	29.801 "
" " " " " May, 1906	30.245 "
" " " " " June, 1906	29.816 "
" " first 6 days in July, 1906	29.664 "

MONTHLY MEANS OF THERMOMETRIC READINGS AT CAPE SHERIDAN, 1905-1906

(Regular thermometric readings were taken daily at 7 A. M., 2 P. M., and 9 P. M.)

Mean for 27 days in August, 1905	+36.86°F.
" " " " " September, 1905	+12.66 "
" " " " " October, 1905	— 8.40 "
" " " " " November, 1905	—17.24 "
" " " " " December, 1905	—21.83 "
" " " " " January, 1906	—29.55 "
" " " " " February, 1906	—31.14 "
" " " " " March, 1906	—32.28 "
" " " " " April, 1906	— 0.40 "
" " " " " May, 1906	+19.34 "
first 17 days in June, 1906	+32.18 "

REPORT OF EXPEDITION OF 1898-1902

THE AUXILIARY S. S. "ERIK" IN THE HARBOUR OF ETAH

THE BARRIER AT CAPE COLLINSON

CHAPTER XV

REPORT OF COMMANDER PEARY, ON WORK DONE IN THE ARCTIC IN 1898–1902

President Jesup, and Members of the Peary Arctic Club:

In January, 1897, I promulgated my plan for an extended scheme of Arctic exploration, having for its main purpose the attainment of the North Pole. During the spring of 1897, your President, Morris K. Jesup, became interested in the matter, and suggested the idea of the present Club. His example was followed by other prominent men, and late in May, through the persistent personal efforts of Chas. A. Moore, backed by letters from these and other influential men, five years leave of absence was granted me by the Navy Department, to enable me to carry out my plans.

It being too late that season to get the main expedition under way, the summer of 1897 was devoted to a preliminary trip to the Whale Sound region, to acquaint the Eskimos with my plan for the coming year, and set them to work laying in a stock of skins and meat. These objects were successfully accomplished, and in addition the great "Ahnighito" meteorite of Melville Bay, the largest known meteorite in the world, was brought home.

In December, 1897, while I was in London, the steam yacht *Windward*, which had been used in his Franz Joseph Land expedition, was tendered to me by Alfred Harmsworth, who offered to have her re-engined and delivered to me in New York. This generous offer I accepted.

In the spring of 1898 the Peary Arctic Club was organised, Morris K. Jesup, Henry W. Cannon, H. L. Bridgman, all personal friends of mine, forming the nucleus about which the rest of you assembled, and in May the *Windward* arrived; but, to my regret and disappointment, the machinists' strike in England having prevented the installation of new engines, she was practically nothing but a sailing craft.

The lateness of the season was such that I had to make the most of the *Windward* as she was. But her extreme slowness (3 1-2 knots under favourable circumstances), and the introduction of a disturbing factor in the appropriation by another of my plan and field of work, necessitated the charter of an auxiliary ship if I did not wish to be distanced. The *Windward* sailed from New York on the 4th of July, 1898, and on the 7th I went on board the *Hope* at Sydney, C. B.

1898–1899

Pushing rapidly northward, and omitting the usual calls at the Danish Greenland ports, Cape York was reached after a voyage, uneventful except for a nip in the ice of Melville Bay, which lifted the *Hope* bodily, and for a few hours seemed to contain possibilities of trouble.

The work of hunting walrus and assembling my party of natives was commenced at once, the *Windward* soon joined us, after which the hunting was prosecuted by both ships until the final rendezvous at Etah, whence both ships steamed out on Saturday, August 13th, the *Windward* to continue northward, the *Hope* bound for home. The *Windward* was four hours forcing her way through a narrow barrier of heavy ice across the mouth of Foulke Fiord. Here the *Hope* left us, straightening away southward toward Cape Alexander, and the *Windward* headed for Cape Hawkes, showing distinctly beyond Cape Sabine.

At 4 A. M. Sunday we encountered scattered ice off Cape Albert. About noon we were caught in the ice near Victoria Head, and drifted back several miles. Finally we got round Victoria Head into Princess Marie Bay at 6 P. M. The bay was filled with the season's ice, not yet broken out, while Kane Basin was crowded with the heavy, moving polar pack. Between the two, extending northward across the mouth of the bay, was a series of small pools and threads of water, opening and closing with the movements of the tide. At 11:30 P. M. of the 18th the *Windward* had worried her way across the bay to a little patch of open water close under Cape D'Urville. Here further progress was stopped by a large floe, several miles across, one end resting against the shore, the other extending into the heavy ice. While crossing the bay the more important stores had been stowed on the deck in readiness to be thrown out upon the ice in the event of a nip. Pending the turning of the tide,

when I hoped the big floe would move and let us proceed, I landed at Cape D'Urville, deposited a small cache of supplies and climbed the bluffs to look at the conditions northward.

August 21st, I went on a reconnoissance along the ice-foot to the head of Allman Bay and into the valley beyond. The night of the 21st young ice formed, which did not melt again. On the 28th I attempted to sledge over the sea-ice to Norman Lockyer Island, but found too many weak places, and fell back on the ice-foot. The night of the 29th the temperature fell to -13° F., and on the 31st the new ice was four and a quarter inches thick. On this day I went to Cape Hawkes and climbed to its summit, whence I could see lakes out in Kane Basin, but between them and the *Windward* the ice was closely packed—a discouraging outlook. Only a strong and continued westerly wind would give me any chance. I could not leave the ship for fear an opportunity to advance would occur in my absence.

September 2d, I started on a sledge trip up Princess Marie Bay. At Cape Harrison the strong tidal current kept the ice broken, so that I could not round it, and the ice-foot was impracticable for sledges. I went on foot to the entrance of Cope's Bay, surveying the shore to that point, and returned to the ship after four days. During this trip I obtained the English record from the cairn on the summit of Norman Lockyer Island, left there twenty-two years ago. This record was as fresh as when deposited.

September 6th, I left the ship to reconnoitre Dobbin Bay, the head of which is uncharted, returning three

days later. During this trip the first real snowstorm of the season occurred, five and a half inches falling.

September 12th, one-third of my provisions, an ample year's supply for the entire party, was landed at Cape D'Urville, my Eskimos sledging loads of 700 to 1,000 pounds over the young ice. The night of the 13th the temperature dropped to −10° F., and all hope of further advance was at an end. September 15th the boiler was blown off and preparations for winter commenced.

On the 17th I broached my plans for the winter campaign, as follows:

The autumn work was simple enough and outlined itself. It comprised two items: the securing of a winter's supply of fresh meat and the survey of the Buchanan-Strait-Hayes-Sound-Princess-Marie-Bay region. In spite of the peculiarly desolate character of that part of the Grinnell Land coast immediately about the *Windward*, and the apparent utter absence of animal life, I felt confident of accomplishing the former. Various reconnoissances thus far, on the north shore of Princess Marie Bay, had given me little encouragement, but I knew that the Eskimos had killed one or two musk-oxen, in years past, on Bache Island, and that region looked favourable for them. As regarded the survey, a presentiment that I must begin it at the earliest moment had led me to make attempts to reach the head of Princess Marie Bay.

As to the spring campaign, I proposed to utilise the winter moons in pushing supplies to Fort Conger, to move my party to that station early in February, and on the return of the sun start from there as a base and

make my attempt on the Pole *via* Cape Hecla. I *might* succeed in spite of the low latitude of my starting point, and, in any event, could reach the ship again before the ice broke up, with thorough knowledge of the coast and conditions to the north.

September 18th, I left the ship with two sledges and my two best Eskimos, with provisions for twelve days for a reconnoissance of Princess Marie Bay. September 20th I reached the head of a small fiord running southwest from near the head of Princess Marie Bay, and found a narrow neck of land, about three miles wide, separating it from a branch of Buchanan "Strait." Bache "Island" of the chart is, therefore, a peninsula and not an island. From a commanding peak in the neighbourhood I could see that both arms of Buchanan "Strait" ended about south of my position; that the "strait" is in reality a bay, and that Hayes Sound does not exist. On the 21st and 22d I penetrated the arms of Princess Marie Bay, designated as Sawyer and Woodward bays on the charts, and demonstrated them to be entirely closed.

September 23d, while entering a little bight about midway of the north shore of Bache Peninsula, I came upon two bears. These my dogs chased ashore and held at bay until I could come up and kill them.

September 25th, I crossed Bache Peninsula on foot with my two men, from Bear Camp to the intersection of the northern and southern arms of Buchanan Bay. Here we found numerous walrus, and could command the southern arm to the large glacier at its head. Comparatively recent musk-ox tracks convinced me of the presence of musk-oxen on the peninsula. The

next day I returned to the *Windward* to refit and start for Buchanan Bay *via* Victoria Head and Cape Albert in the quest of walrus and musk-oxen. Henson, in a reconnoissance northward during my absence, had been unable to get more than a few miles beyond Cape Louis Napoleon, the sea ice and the ice-foot being alike impracticable. A day or two after my return I started him off to try it again.

September 30th, I started for Buchanan Bay. Between Victoria Head and Cape Albert I found fresh tracks of a herd of musk-oxen, and followed them until obliterated by the wind. The walrus grounds in Buchanan Bay were reached late on October 4th, and the next day I secured a walrus and the remainder of my party arrived. The following day everyone was out after musk-oxen; but, finding it very foggy on the uplands of the peninsula, I returned to camp and went up Buchanan Bay in search of bears. While I was away one of my hunters killed a bull musk-ox.

On the 7th I sent two men to bring in the meat and skin, while I went up Buchanan Bay again. Returning to camp, I found it deserted. A little later some of the party returned, reporting a herd of fifteen musk-oxen killed. The next two days were consumed in cutting up the animals, stacking the meat and getting the skins and some of the meat out to camp.

October 10th, we started for the ship, which was reached late on the 12th. The ice in Buchanan Bay was very rough, and a snowstorm on the 11th made going very heavy. Five days later, October 17th, I went with two men to locate a direct trail for getting the meat out to the north side of the peninsula, but

found the country impracticable, and returned to the ship on the 21st. The sun left us on the 20th.

The following week was devoted to the work of preparation for the winter. A reconnoissance of Franklin Pierce bay developed nothing but hare tracks, but Henson came in from Cope's Bay with a big bear, killed near the head of the bay. This marked the end of the fall campaign, with our winter's fresh meat supply assured and the Bache-"Island"-Buchanan-"Strait"-"Hayes-Sound" question settled.

The next step was the inauguration of the teaming work, which was to occupy us through the winter. I already had my pemmican and some miscellaneous supplies at Cape Louis Napoleon and two sledge loads of provisions at Cape Fraser. The rapidly disappearing daylight being now too limited for effective travelling, I was obliged to await the appearance of the next moon before starting for a personal reconnoissance of the coast northward. On the 29th I left the ship with Henson and one Eskimo. The soft snow of the last two storms compelled me to break a road for the sledges with snowshoes across Allman Bay and along many portions of the ice-foot, but in spite of this delay we camped at Cape Louis Napoleon after a long march.

The next day we reached Cape Fraser, having been impeded by the tide rising over the ice-foot, and camped at Henson's farthest, at the beginning of what seemed an impracticable ice-foot. It was the only possible way of advance, however, as the still-moving pack in the channel was entirely impassable. The following day I made a reconnoissance on foot as far as Scoresby Bay, and though the ice-foot was then impracticable

for sledges, I was convinced that a good deal of earnest work with picks and shovels, assisted by the levelling effects of the next spring tides, would enable me to get loaded sledges over it during the next moon. From Cape Norton Shaw I could see that by making a detour into Scoresby Bay the heavy pack could be avoided in crossing.

This stretch of ice-foot from Cape Fraser to Cape Norton Shaw is extremely Alpine in character, being an almost continuous succession of huge blocks and masses of bergs and old floes, forced bodily out of the water and up on to the rocks. At Cape John Barrow a large berg had been forced up on the solid rock of the high-tide level.

Returning from my reconnoissance, I camped again at Cape Fraser, building the first of the snow igloos, which I intended should be constructed at convenient intervals the entire distance to Fort Conger. The next three days were occupied in bringing the supplies at Cape Louis Napoleon up to Cape Fraser, and on the 4th of November I returned to the ship.

The time until the return of the next moon was fully occupied in making and repairing sledges, bringing in beef from the cache on Bache Peninsula, and transporting supplies and dog-food to Cape Hawkes, beyond the heavy going of Allman Bay. During much of this time the temperature was in the -40°'s, Fahr.

November 21st, Henson and three Eskimos left with loads, and on the 22d I followed with a party of three to begin the work of the November moon. This work ended just after midnight of December 4th, when the last sledges came in. It left 3,300 pounds of supplies

and a quantity of dog-food at Cape Wilkes, on the north side of Richardson Bay. These supplies would have been left at Cape Lawrence had it not been for the desertion and turning back of one of my men, discouraged with the hard work, while crossing Richardson Bay. Knowing it to be essential to prevent any recurrence of the kind, I pushed on to Cape Wilkes, camped and turned in after a twenty-five-hours day, slept three hours, then started with empty sledge, eight picked dogs, and an Eskimo driver, to overtake my man. He was found at Cape Louis Napoleon, and, after receiving a lesson, was taken along with me to the ship.

My party was left with instructions to bring up supplies which the wrecking of sledges had obliged me to cache at various places, assemble all at Cape Wilkes, and then, if I did not return, reconnoitre the ice-foot to Rawlings Bay, and return to the ship.

The distance from Cape Wilkes to the *Windward* was sixty nautical miles in a straight line (as travelled by me along the ice-foot and across the bays, not less than ninety statute miles); and was covered in 23 hours and 20 minutes, or 21 hours 30 minutes actual travelling time. Temperature during the run -50° F.

Every sledge was more or less smashed in this two weeks' campaign, and at Cape John Barrow sledges and loads had to be carried on our backs over the ice jams. The mean daily minimum temperature for the thirteen days was -41.2° F., the lowest -50° F., which occurred on four successive days.

The experience gained on this trip led me to believe that the conditions of travel from Cape Wilkes

northward as far at least as Cape Defosse would not differ materially from those already encountered, and enabled me to lay my plans with somewhat greater detail. With the light of the December moon I would proceed to Cape Wilkes with such loads as would enable me to travel steadily without double-banking, advance everything to Cape Lawrence on the north side of Rawlings Bay, then go on to Fort Conger with light sledges, determine the condition of the supplies left there that I might know what I could depend upon, and then return to the ship.

In the January moon I would start with my entire party; move supplies from Cape Lawrence to Fort Conger; remain there till the February moon, the light of which would merge into the beginning of the returning daylight; then sledge the supplies for the polar journey to Cape Hecla, and be in readiness to start from there with rested and well-fed dogs by the middle of March.

In pursuance of this plan, the two weeks intervening between the departure of the November moon and the appearance of the December one were busily occupied in repairing and strengthening sledges, and making and overhauling clothing and equipment, to enable us to meet this long and arduous journey in the very midnight of the "Great Night." During this interval the temperature much of the time was at -51° F. and lower.

December 20th, in the first light of the returning moon, I left the *Windward* with my doctor, Henson, four Eskimos, and thirty dogs, all that were left of the sixty-odd of four months previous. Thick weather, strong

winds rushing out of Kennedy Channel, heavy snow and an abominable ice-foot in Rawlings Bay delayed us, and it was not until the 28th that I had all my supplies assembled at Cape Lawrence, on the north side of Rawlings Bay.

Cape Lawrence presented the advantage of two possible routes by which these latter supplies could be reached from Conger, one through Kennedy Channel, which I was about to follow, and the othe *via* Archer Fiord and overland. In spite of the delays I felt, on the whole, well satisfied with the work up to the end of the year. I had all my supplies half way to Fort Conger, and had comfortable snow igloos erected at Cape Hawkes, Cape Louis Napoleon, Cape Fraser, Cape Norton Shaw, Cape Wilkes, and Cape Lawrence.

December 29th, I started from Cape Lawrence with light sledges for Fort Conger, hoping to make the distance in five days. The first march from Cape Lawrence the ice-foot was fairly good, though an inch or two of efflorescence made the sledges drag as if on sand. The ice-foot grew steadily worse as we advanced, until, after rounding Cape Defosse, it was almost impassable, even for light sledges. The light of the moon lasted only for a few hours out of the twenty-four, and at its best was not sufficient to permit us to select a route on the sea ice.

Just south of Cape Defosse we ate the last of our biscuit, just north of it the last of our beans. On the next march a biting wind swept down the Channel and numbed the Eskimo who had spent the previous winter in the United States, to such an extent, that, to save him, we were obliged to halt just above Cape

Cracroft and dig a burrow in a snowdrift. When the storm ceased, I left him with another Eskimo and nine of the poorer dogs, and pushed on to reach Fort Conger.

The moon had left us entirely now, and the ice-foot was utterly impracticable, and we groped and stumbled through the rugged sea ice as far as Cape Baird. Here we slept a few hours in a burrow in the snow, then started across Lady Franklin Bay. In complete darkness and over a chaos of broken and heaved-up ice, we stumbled and fell and groped for eighteen hours, till we climbed upon the ice-foot of the north side. Here a dog was killed for food.

Absence of suitable snow put an igloo out of the question, and a semi-cave under a large cake of ice was so cold that we could stop only long enough to make tea. Here I left a broken sledge and nine exhausted dogs. Just east of us a floe had been driven ashore, and forced up over the ice-foot till its shattered fragments lay a hundred feet up the talus of the bluff. It seemed impassable, but the crack at the edge of the ice-foot allowed us to squeeze through; and soon after we rounded the point, and I was satisfied by the "feel" of the shore, for we could see nothing, that we were at one of the entrances of Discovery Harbour, but which, I could not tell.

Several hours of groping showed that it was the eastern entrance. We had struck the centre of Bellot Island, and at midnight of January 6th we were stumbling through the dilapidated door of Fort Conger. A little remaining oil enabled me, by the light of our sledge cooker, to find the range and the stove in the

officers' quarters, and, after some difficulty, fires were started in both. When this was accomplished, a suspicious "wooden" feeling in the right foot led me to have my kamiks pulled off, and I found, to my annoyance, that both feet were frosted.

Coffee from an open tin in the kitchen, and biscuit from the table in the men's room, just as they had been dropped over fifteen years ago, furnished the menu for a simple but abundant lunch. A hasty search failing to discover matches, candles, lamps, or oil, we were forced to devise some kind of a light very quickly, before our oil burned out. Half a bottle of olive oil, a saucer, and a bit of towel furnished the material for a small native lamp, and this, supplemented by pork fat and lard, furnished us light for several days, until oil was located. Throwing ourselves down on the cots in the officers' rooms, after everything had been done for my feet, we slept long and soundly. Awakening, it was evident that I should lose parts or all of several toes, and be confined for some weeks. The mean minimum temperature during the trip was -51.9° F., the lowest -63° F.

During the following weeks our life at Conger was pronouncedly *a la* Robinson Crusoe. Searching for things in the unbroken darkness of the "Great Night," with a tiny flicker of flame in a saucer, was very like seeking a needle in a haystack. Gradually all the essentials were located, while my two faithful Eskimos brought in empty boxes and barrels and broke them up to feed the fire. The dogs left on Bellot Island were brought in, but several died before they got used to the frozen salt pork and beef, which was all I had to

feed them. The natives made two attempts to reach and bring in the two men left at Cape Cracroft, but were driven back both times by the darkness and furious winds. Finally, some ten days after we left the dug-out, they reached it again, and found that the two men, after eating some of their dogs, had started for the ship on foot, the few remaining dogs following them.

On the 18th of February, the moonlight and the remaining twilight afforded enough light for a fair day's march in each twenty-four hours; and we started for the *Windward*. My toes were unhealed, and I could hardly stand for a moment. I had twelve dogs left, but their emaciated condition and the character of the road precluded riding by anyone but myself. Lashed firmly down, with feet and legs wrapped in musk-ox skin, I formed the only load of one sledge. The other carried the necessary provisions.

On the 28th we reached the *Windward*, everyone but myself having walked the entire distance, of not less than 250 miles, in eleven days. Fortunately for us, and particularly for me, the weather during our return, though extremely cold, was calm, with the exception of one day from Cape Cracroft south, during which the furious wind kept us enveloped in driving snow. The mean minimum daily temperature while we were returning was −56.18° F., reaching the lowest, −65° F., the day we arrived at the *Windward*.

March 3d I started one of my Eskimos for Whale Sound with a summons to the hunters there to come to me with their dogs and sledges. Between the 3d and the 14th, a party of Eskimos coming unexpectedly, the last of the musk-ox meat on Bache Peninsula was

brought to the ship, and another bull musk-ox killed.

March 13th, the final amputation of my toes was performed. Pending the arrival of more natives, I sent a dory to Cape Louis Napoleon to be cached, and had dog-food and current supplies advanced to Cape Fraser.

March 31st, a contingent of five natives and twenty-seven dogs came in. My messenger had been delayed by heavy winds and rough ice, and the ravages of the dog disease had made it necessary to send to the more southerly settlements for dogs.

April 3d, Henson left with these natives and thirty-five dogs, with instructions to move the supplies at Cape Lawrence to Carl Ritter Bay, then push on with such loads as he could carry without double-banking to Fort Conger, rest his dogs and dry his clothing, and if I did not join him by that time to start back.

April 19th, my left foot had healed, though it was still too weak and stiff from long disuse for me to move without crutches. On this day I started for Fort Conger with a party of ten, some fifty dogs, and seven sledges loaded with dog-food and supplies for return caches.

April 23d, I met Henson returning with his party at Cape Lawrence. From there I sent back my temporary help and borrowed dogs, and went on with a party of seven, including five natives. April 28th we reached Conger.

May 4th, having dried all our gear and repaired sledges, I started for a reconnoissance of the Greenland northwest coast. I should have started two days earlier but for bad weather. Following the very ar-

duous ice-foot to St. Patrick's Bay, I found the bay filled with broken pack ice covered with snow almost thigh deep. From the top of Cape Murchison, with a good glass, no practicable road could be seen. The following day I sent two men with empty sledges and a powerful team of dogs to Cape Beechey, to reconnoitre from its summit. Their report was discouraging. Clear across to the Greenland shore, and up and down as far as the glass could reach, the channel was filled with unheaved floe fragments, uninterrupted by young ice or large floes, and covered with deep snow.

Crippled as I was, and a mere dead weight on the sledge, I felt that the road was impracticable. Had I been fit and in my usual place, ahead of the sledges breaking the trail with my snow-shoes, it would have been different. One chance remained—that of finding a passage across to the Greenland side at Cape Lieber.

Returning to Fort Conger, I sent Henson and one Eskimo off immediately on this reconnoissance, and later sent two men to Musk-ox Bay to look for musk-oxen. Two days afterward they returned reporting sixteen musk-oxen killed, and Henson came in on the same day, reporting the condition of the channel off Capes Lieber and Cracroft the same as that off Capes Beechey and Murchison, and that they had been unable to get across. I now gave up the Greenland trip, and perhaps it was well that I did so, as the unhealed place on my right foot was beginning to break down and assume an unhealthy appearance from its severe treatment. As soon as the musk-ox skins and beef were brought in, the entire party, except myself and one

Eskimo, went to the Bellows and Black Rock Vale for more musk-oxen. Twelve were killed there, and the skins and meat brought to Conger.

Not believing it desirable to kill more musk-oxen, and unable to do any travelling north, I completed the work of securing the meat and skins obtained; getting the records and private papers of the United States Lady Franklin Bay Expedition together; securing as far as possible collections and property; housing material and supplies still remaining serviceable, and making the house more comfortable for the purposes of my party.

May 23d we started for the ship, carrying only the scientific records of the expedition, the private papers of its members, and necessary supplies. I was still obliged to ride continuously. Favoured with abundant light and continuously calm weather, and forcing the dogs to their best, the return to the ship was accomplished in six days, arriving there May 29th.

During my absence Capt. Bartlett had built at Cape D'Urville, from plans which I furnished him, a comfortable house of the boxes of supplies, double-roofed with canvas, and banked in with gravel.

June 1st, I sent one sledge-load of provisions to Cape Louis Napoleon, and four to Cape Norton Shaw. June 6th, I sent three loads to Carl Ritter Bay, and two to Cape Lawrence. On the 23th of June, the last of these sledges returned to the *Windward*, and the year's campaign to the north was ended. The return from Carl Ritter Bay had been slow, owing to the abundance of water on the ice-foot and the sea ice of the bays, and the resulting sore feet of the dogs.

June 28th, a sufficient number of dogs had recovered from the effect of their work to enable me to make up two teams, and Henson was sent with these, four of the natives and a dory, to make his way to Etah and communicate with the summer ship immediately on her arrival, so that her time would not be wasted even should the *Windward* be late in getting out of the ice.

June 29th, I started with two sledges and three natives to complete my survey of Princess Marie and Buchanan bays, and make a reconnoissance to the westward from the head of the former. My feet, which I had been favouring since my return from Conger, were now in fair condition, only a very small place on the right one remaining unhealed. Travelling and working at night, and sleeping during the day, I advanced to Princess Marie Bay, crossed the narrow neck of Bache Peninsula, and camped on the morning of July 4th near the head of the northern arm of Buchanan Bay. Hardly was the tent set up when a bear was seen out in the bay, and we immediately went in pursuit, and in a short time had him killed. He proved to be a fine large specimen.

While after the bear, I noticed a herd of musk-oxen a few miles up the valley, and after the bear had been brought into camp and skinned, and we had snatched a few hours' sleep, we went after the musk-oxen. Eight of these were secured, including two fine bulls and two live calves, the latter following us back to camp of their own accord. The next three days were occupied in getting the beef to camp. I then crossed to the southern arm of Buchanan Bay, securing another musk-ox. Returning to Princess Marie Bay,

I camped on the morning of the 14th at the glacier, which fills the head of Sawyer Bay.

During the following six days I ascended the glacier, crossed the ice cap to its western side, and, from elevations of from 4,000 to 4,700 feet, looked down upon the snow-free western side of Ellesmere Land, and out into an ice-free fiord, extending some fifty miles to the northwest. The season here was at least a month earlier than on the east side, and the general appearance of the country reminded me of the Whale Sound region of Greenland. Clear weather for part of one day enabled me to take a series of angles, then fog and rain and snow settled down upon us. Through this I steered by compass back to and down the glacier, camping on the 21st in my camp of the 15th.

The return from here to the ship was somewhat arduous, owing to the rotten condition of the one-year ice, and the deep pools and canals of water on the surface of the old floes. These presented the alternative of making endless detours or wading through water often waist deep. During seven days our clothing, tent, sleeping-gear and food were constantly saturated. The *Windward* was reached on the 28th of July.

In spite of the discomforts and hardships of this trip, incident to the lateness of the season, I felt repaid by its results. In addition to completing the notes requisite for a chart of the Princess-Marie-Buchanan-Bay region, I had been fortunate in crossing the Ellesmere Land ice-cap, and looking upon the western coast. The game secured during this trip comprised 1 polar bear, 7 musk-oxen, 3 oogsook,* and 14 seals.

*Bearded seal.

When I returned to the *Windward* she was round in the eastern side of Franklin Pierce Bay. A party had left two days before with dogs, sledge and boat, in an attempt to meet me and supply provisions. Three days were occupied in communicating with them and getting them and their outfit on board. The *Windward* then moved back to her winter berth at Cape D'Urville, took the dogs on board, and on the morning of Wednesday, August 2d, got under way.

During the next five days we advanced some twelve miles, when a southerly wind jammed the ice and drifted us north, abreast of the starting point. Early Tuesday morning, the 8th. we got another start, and the ice gradually slackening, we kept under way, reached open water a little south of Cape Albert, and arrived at Cape Sabine at 10 P. M.

At Cape Sabine I landed a cache and then steamed over to Etah, arriving at 5 A. M. of the 9th. Here we found mail and learned that the *Diana*, which the Club had sent up to communicate with me, was out after walrus. August 12th the *Diana* returned, and I had the great pleasure of taking Secretary Bridgman, commanding the Club's Expedition, by the hand.

The year had been one of hard and continuous work for the entire party. In that time I obtained the material for an authentic map of the Buchanan-Bay-Bache-Peninsula-Princess-Marie-Bay region; crossed the Ellesmere Land ice-cap to the west side of that land, established a continuous line of caches from Cape Sabine to Fort Conger, containing some fourteen tons of supplies; rescued the original records and private papers of the Greely Expedition; fitted Fort

Conger as a base for future work, and familiarised myself and party with the entire region as far north as Cape Beechey.

With the exception of the supplies at Cape D'Urville, all the provisions, together with the current supplies and dog-food (the latter an excessive item), had been transported by sledge.

Finally, discouraging as was the accident to my feet, I was satisfied, since my effort to reach the northwest coast of Greenland from Fort Conger in May, proved that the season was one of extremely unfavourable ice conditions north of Cape Beechey, and I doubt, even if the accident had not occurred, whether I should have found it advisable on reaching Cape Hecla to attempt the last stage of the journey.

My decision not to attempt to winter at Fort Conger was arrived at after careful consideration. Two things controlled this decision: First, the uncertainty of carrying dogs through the winter, and, second, the comparative facility with which the distance from Etah to Fort Conger can be covered with light sledges.

After the rendezvous with the *Diana* I went on board the latter ship, and visited all the native settlements, gathering skins and material for clothing and sledge equipment, and recruiting my dog-teams.

The *Windward* was sent walrus-hunting during my absence. The *Diana* also assisted in this work. August 25th the *Windward* sailed for home, followed on the 28th by the *Diana*, after landing me with my party, equipment, and additional supplies at Etah.

The *Diana* seemed to have gathered in and taken with her all the fine weather, leaving us a sequence of

clouds, wind, fog, and snow, which continued with scarcely a break for weeks.

After her departure the work before me presented itself as follows: To protect the provisions, construct our winter quarters, then begin building sledges, and grinding walrus meat for dog pemmican for the spring campaign.

During the first month a number of walrus were killed from our boats off the mouth of the fiord; then the usual Arctic winter settled down upon us, its monotony varied only by the visits of the natives, occasional deer-hunts, and a December sledge journey to the Eskimo settlements in Whale Sound as far as Kangerdlooksoah. In this nine days' trip some 240 miles were covered in six marches, the first and the last marches being of 60 to 70 miles. I returned to Etah just in time to escape a severe snowstorm, which stopped communication between Etah and the other Eskimo settlements completely, until I sent a party with snowshoes and a specially constructed sledge, carrying no load, and manned by double teams of dogs, to break the trail.

During my absence some of my natives had crossed to Mr. Stein's place at Sabine, and January 9th I began the season's work by starting a few sledge-loads of dog-food for Cape Sabine, for use of my teams in the spring journey. From this time on, as the open water in Smith Sound permitted, more dog-food was sent to Sabine, and as the light gradually increased some of my Eskimos were kept constantly at Sonntag Bay, some twenty miles to the South, on the lookout for walrus.

My programme for the spring work was to move three divisions of sledges north as far as Conger, the first to be in charge of Henson; while I brought up the rear with the third.

From Fort Conger I should send back a number of Eskimos; retain some at Conger; and with others proceed north *via* Hecla or the north point of Greenland, as circumstances might determine.

I wanted to start the first division on the 15th of February, the second a week later, and leave with the third March 1st; but a severe storm, breaking up the ice between Etah and Littleton Island, delayed the departure of the first division of seven sledges until the 19th.

The second division of six sledges started on the 26th, and March 4th I left with the rear division of nine sledges. Three marches carried us to Cape Sabine, along the curving northern edge of the north water. Here a northerly gale, with heavy drift, detained me for two days. Three more marches in a temperature of -40° F. brought me to the house at Cape D'Urville. Records here informed me that the first division had been detained here a week by stormy weather, and the second division had left but two days before my arrival. I had scarcely arrived when two of Henson's Eskimos came in from Richardson Bay, where one of them had severely injured his leg by falling under a sledge. One day was spent at D'Urville drying our clothing, and on the 13th I got away on the trail of the other divisions with seven sledges, the injured man going to Sabine with the supporting party.

I hoped to reach Cape Louis Napoleon on this march, but the going was too heavy, and I was obliged to camp in Dobbin Bay, about five miles short of the cape. The next day I hoped on starting to reach Cape Fraser, but was again disappointed, a severe windstorm compelling me to halt a little south of Hayes Point, and hurriedly build snow igloos in the midst of a blinding drift. All that night and the next day, and the next night, the storm continued. An early start was made on the 16th, and in calm but very thick weather, we pushed on to Cape Fraser. Here we encountered the wind and drift full in our faces, and violent, making our progress from here to Cape Norton Shaw along the ice-foot very trying.

The going from here across Scoresby and Richardson bays was not worse than the year before; and from Cape Wilkes to Cape Lawrence the same as we had always found it. These two marches were made in clear but bitterly windy weather.

Another severe southerly gale held us prisoners at Cape Lawrence for a day. The 20th was an equally cruel day, with wind still savage in its strength, but the question of food for my dogs gave me no choice but to try to advance. At the end of four hours we were forced to burrow into a snow-bank for shelter, where we remained till the next morning.

In three more marches we reached Cape Leopold von Buch. Two more days of good weather brought us to a point a few miles north of Cape Defosse. Here we were stopped by another furious gale with drifting snow, which prisoned us for two nights and a day.

The wind was still bitter in our faces when we again got under way the morning of the 27th, the ice-foot became worse and worse up to Cape Cracroft, where we were forced down into the narrow tidal joint, at the base of the ice-foot; this path was a very narrow and tortuous one, frequently interrupted, and was extremely trying on men and sledges. Cape Lieber was reached on this march. At this camp the wind blew savagely all night, and in the morning I waited for it to moderate before attempting to cross Lady Franklin Bay. While thus waiting the returning Eskimos of the first and second divisions came in. They brought the very welcome news of the killing of 21 musk-oxen close to Conger. They also reported the wind out in the bay as less severe than at the Cape.

I immediately got under way and reached Conger just before midnight of the 28th—24 days from Etah —during six of which I was held up by storms.

The first division had arrived four days and the second two days earlier. During this journey there had been the usual annoying delays of broken sledges, and I had lost numbers of dogs.

The process of breaking in the tendons and muscles of my feet to their new relations, and the callousing of the amputation scars, in this, the first serious demand upon them, had been disagreeable, but was, I believed, final and complete. I felt that I had no reason to complain.

The herd of musk-oxen so opportunely secured near the station, with the meat cached here the previous spring, furnished the means to feed and rest my dogs. A period of thick weather followed my arrival at Conger

and not until April 2d could I send back the Eskimos of my division.

On leaving Etah I had not decided whether I should go north from Conger *via* Cape Hecla, or take the route along the northwest coast of Greenland. Now I decided upon the latter. The lateness of the season and the condition of the dogs might militate against a very long journey; and if I chose the Hecla route and failed of my utmost aims, the result would be complete failure. If, on the other hand, I chose the Greenland route and found it impossible to proceed northward over the pack, I still had an unknown coast to exploit and the opportunity of doing valuable work. Later developments showed my decision to be a fortunate one.

I planned to start from Conger the 9th of April, but stormy weather delayed the departure until the 11th, when I got away with seven sledges.

At the first camp beyond Conger my best Eskimo was taken sick, and the following day I brought him back to Conger, leaving the rest of the party to cross the channel to the Greenland side, where I would overtake them. This I did two or three days later, and we began our journey up the northwest Greenland coast. As far as Cape Sumner we had almost continuous road-making through very rough ice. Before reaching Cape Sumner we could see a dark water sky, lying beyond Cape Brevoort, and knew that we should find open water there.

From Cape Sumner to Polaris Boat Camp, in Newman Bay, we cut a continuous road. Here we were stalled until the 21st by continued and severe winds.

Getting started again in the tail end of the storm, we advanced as far as the open water, a few miles east of Cape Brevoort, and camped. This open water, about three miles wide at the Greenland end, extended clear across the mouth of Robeson Channel to the Grinnell Land coast, where it reached from Lincoln Bay to Cape Rawson. Beyond it, to the north and northwest, as far as could be seen, were numerous lanes and pools. The next day was devoted to hewing a trail along the ice-foot to Repulse Harbour, and on the 23d, in a violent gale, accompanied by drift, I pushed on to the "Drift Point" of Beaumont (and later Lockwood), a short distance west of Black Horn Cliffs.

The ice-foot as far as Repulse Harbour, in spite of the roadmaking of the previous day, was very trying to sledges, dogs, and men. The slippery side slopes, steep ascents, and precipitous descents wrenched and strained the men, and capsized, broke, and ripped shoes from the sledges.

I was not surprised to see from the "Drift Point" igloo that the Black Horn Cliffs were fronted by open water. The pack was in motion here, and had only recently been crushing against the ice-foot, where we built our igloo. I thought I had broken my feet in pretty thoroughly on the journey from Etah to Conger; but this day's work of handling a sledge along the ice-foot made me think they had never encountered any serious work before. A blinding snowstorm on the 24th kept us inactive. The next day I made a reconnoissance to the Cliffs, and the next set the entire party to work hewing a road along the ice-foot. That night the temperature fell to -25° F., forming a film

of young ice upon the water. The next day I moved up close to the Cliffs, and then with three Eskimos reconnoitred the young ice. I found that by proceeding with extreme care it would in most places support a man.

With experienced Ahsayoo ahead, constantly testing the ice with his seal spear, myself next, and two Eskimos following, all with feet wide apart, and sliding instead of walking, we crept past the cliffs. Returning we brushed the thin film of newly fallen snow off the ice with our feet, for a width of some four feet, to give the cold free access to it.

I quote from my diary for the 27th:

"At last we are past the barrier which has been looming before me for the last ten days—the open water at the Black Horn Cliffs. Sent two of my men, whose nerves are disturbed by the prospect ahead, back to Conger. This leaves me with Henson and three Eskimos. My supplies can now be carried on the remaining sledges. Still further stiffened by the continuous low temperature of the previous night, the main sheet of new ice in front of the cliffs was not hazardous, as long as the sledges keep a few hundred feet apart, did not stop, and their drivers keep some yards away to one side. Beyond the limit of my previous day's reconnoissance there were areas of much younger ice, which caused me considerable apprehension, as it buckled to a very disquieting extent beneath dogs and sledges, and from the motion of the outside pack, was crushed up in places, while narrow cracks opened up in others. Finally, to my relief, we reached the ice-foot beyond the cliffs and camped."

The next day there was a continuous lane of water, 100 feet wide, along the ice-foot by our camp, and the space in front of the cliffs was again open water. We crossed just in time.

Up to Cape Stanton we had to hew a continuous road along the ice-foot. After this the going was much better to Cape Bryant. Off this section of the coast the pack was in constant motion, and an almost continuous lane of water extended along the ice-foot. A long search at Cape Bryant finally discovered the remains of Lockwood's cache and cairn, which had been scattered by bears. Three marches, mostly in thick weather, and over alternating hummocky blue ice and areas of deep snow, brought us at 1 A. M. of May 4th to Cape North (the northern point of Cape Britannia Island). From this camp, after a sleep, I sent back two more Eskimos and the twelve poorest dogs, leaving Henson, one Eskimo, and myself, with three sledges and sixteen dogs, for the permanent advance party.

From Cape North a ribbon of young ice on the so-called tidal crack, which extends along this coast, gave us a good lift nearly across Nordenskjold Inlet. Then it became unsafe, and we climbed a heavy rubble barrier to the old floe ice inside, which we followed to Cape Benêt, and camped. Here we were treated to another snowstorm.

Another strip of young ice gave us a passage nearly across Mascart Inlet, until, under Cape Payer, I found it so broken up that two of the sledges and nearly all of the dogs got into the water before we could escape from it. Then a pocket of snow, thigh and waist deep, over rubble ice under the lee of the Cape stalled us

completely. I pitched the tent, fastened the dogs, and we devoted the rest of the day to stamping a road through the snow with our snowshoes. Even then, when we started the next day I was obliged to put two teams to one sledge in order to move it.

Cape Payer was a hard proposition. The first half of the distance round it we were obliged to cut a road, and on the latter half, with twelve dogs and three men to each sledge to push and pull them, snowplow fashion, through the deep snow.

Distant Cape was almost equally inhospitable, and it was only after long and careful reconnoissance that we were able to get our sledges past along the narrow crest of the huge ridge of ice forced up against the rocks. After this we had comparatively fair going, on past Cape Ramsay, Dome Cape, and across Meigs Fiord, as far as Mary Murry Island. Then came some heavy going, and at 11:40 P. M. of May 8th we reached Lockwood's cairn on the north end of Lockwood Island. From this cairn I took the record and thermometer deposited there by Lockwood eighteen years before. The record was in a perfect state of preservation.

One march from here carried us to Cape Washington. Just at midnight we reached the low point, which is visible from Lockwood Island, and great was my relief, to see on rounding this point, another splendid headland, with two magnificent glaciers debouching near it, rising across an intervening inlet. I knew now that Cape Washington was not the northern point of Greenland, as I had feared. It would have been a great disappointment to me, after coming so far, to

find that another's eyes had forestalled mine in looking first upon the coveted northern point.

Nearly all my hours for sleep at this camp were taken up by observations and a round of angles. The ice north from Cape Washington was in a frightful condition—utterly impracticable. Leaving Cape Washington we crossed the mouth of the fiord, packed with blue-top floe-bergs, to the western edge of one of the big glaciers, and then over the extremity of the glacier itself, camping near the edge of the second. Here I found myself in the midst of the birthplace of the "floe-bergs," which could be seen in all the various stages of formation. These "floe-bergs" are merely degraded ice-bergs; that is, bergs of low altitude, detached from the extremity of a glacier, which has for some distance been forcing its way along a comparatively level and shallow sea bottom.

From this camp we crossed the second glacier, then a small fiord, where we killed a polar bear.

It was evident to me now that we were very near the northern extremity of the land; and when we came within view of the next point ahead I felt that my eyes rested at last upon the Arctic Ultima Thule (Cape Morris K. Jesup). The land ahead also impressed me at once as showing the characteristics of a musk-ox country.

This point was reached in the next march, and I stopped to take variation and latitude sights. Here my Eskimo shot a hare, and we saw a wolf track and traces of musk-oxen. A careful reconnoissance of the pack to the northward, with glasses, from an elevation of a hundred feet, showed the ice to be of a less im-

practicable character than it was north of Cape Washington. What were evidently water clouds showed very distinctly on the horizon. This water sky had been apparent ever since we left Cape Washington, and at one time assumed such a shape that I was almost deceived into taking it for land. Continued careful observation destroyed the illusion. My observations completed, we started northward over the pack, and camped a few miles from land.

The two following marches were made in a thick fog, through which we groped our way northward, over broken ice and across gigantic, wavelike drifts of hard snow. One more march in clear weather over frightful going—consisting of fragments of old floes; ridges of heavy ice thrown up to heights of twenty-five to fifty feet; crevasses and holes, masked by snow; the whole intersected by narrow leads of open water—brought us at 5 A. M. on the 16th of May to the northern edge of a fragment of an old floe bounded by water. A reconnoissance from the summit of a pinnacle of the floe, some fifty feet high, showed that we were on the edge of the disintegrated pack, with a dense water sky not far distant.

My hours for sleep at this camp were occupied in observations, and making a transit profile of the northern coast from Cape Washington eastward.

The next day I started back for the land, reached it in one long march and camped.

Within a mile of our next camp a herd of fifteen musk-oxen lay fast asleep; I left them undisturbed. From here on, for three marches, we made great distances over good going, in blinding sunshine, and in the

face of a wind from the east which burned our faces like a sirocco.

The first march took us to a magnificent cape (Cape Bridgman), at which the northern face of the land trends away to the southeast. This cape is in the same latitude as Cape Washington. The next two carried us down the east coast to the 83d parallel. In the first of these we crossed the mouth of a large fiord penetrating for a long distance in a southwesterly (true) direction. On the next, in a fleeting glimpse through the fog, I saw a magnificent mountain of peculiar contour, which I recognised as the peak seen by me in 1895, from the summit of the interior ice-cap south of Independence Bay, rising proudly above the land to the north. This mountain was then named by me Mt. Wistar. Finally the density of the fog compelled a halt on the extremity of a low point, composed entirely of fine glacial drift, and which I judged to be a small island in the mouth of a large fiord.

From my camp of the previous night I had observed this island (?) and beyond and over it a massive block of a mountain, forming the opposite cape of a large intervening fiord, and beyond that again another distant cape. Open water was clearly visible a few miles off the coast, while not far out dark water clouds reached away to the southeast.

At this camp I remained two nights and a day, waiting for the fog to lift. Then, as there seemed to be no indication of its doing so, and my provisions were exhausted, I started on my return journey at 3:30 A. M. on the 22d of May, after erecting a cairn, in which I deposited the following record:

COPY OF RECORD IN CAIRN AT CLARENCE WYCKOFF ISLAND

Arrived here at 10:30 P. M., May 20th, from Etah via Fort Conger, and north end of Greenland. Left Etah March 4th. Left Conger April 15th. Arrived north end of Greenland May 13th. Reached point on sea-ice latitude 83° 50′ N., May 16th.

On arrival here had rations for one more march southward. Two days dense fog have held me here. Am now starting back.

With me are my man Matthew Henson; Ahngmalokto, an Eskimo; sixteen dogs and three sledges.

This journey has been made under the auspices of and with funds furnished by the Peary Arctic Club of New York City.

The membership of this Club comprises: Morris K. Jesup, Henry W. Cannon, Herbert L. Bridgman, John Flagler, E. C. Benedict, James J Hill, H. H. Benedict, Fred'k E. Hyde, E. W. Bliss, H. H. Sands, J. M. Constable, C. F. Wyckoff, E. G. Wyckoff, Chas. P. Daly, Henry Parish A. A. Raven, G. B. Schley, E. B. Thomas, and others.

R. E. PEARY,
Civil Engineer, U. S. N.

The fog kept company with us on our return almost continuously until we had passed Lockwood Island, but as we had a trail to follow, did not delay us as much as the several inches of heavy snow that fell in a blizzard, which came from the Polar basin, and imprisoned us for two days at Cape Bridgman.

At Cape Morris K. Jesup, the northern extremity, I erected a prominent cairn, in which I deposited the following record:

COPY OF RECORD IN NORTH CAIRN

May 13, 1900—5 A. M.

Have just reached here from Etah via Ft. Conger. Left Etah March 4th. Left Conger April 15th Have with me my man Henson, an Eskimo Ahngmalokto, 16 dogs and three sledges; all in fair condition. Proceed to-day due north (true) over sea-ice. Fine weather. I am doing this work under the auspices of and with funds furnished by the Peary Arctic Club of New York City.

The membership of this Club comprises: Morris K. Jesup, Henry W. Cannon, Herbert L. Bridgman, John H. Flagler, E. C. Benedict, Fred'k E. Hyde, E. W. Bliss, H. H. Sands, J. M. Constable, C. F. Wyckoff,

E G. Wyckoff, Chas. P. Daly, Henry Parish, A. A. Raven, E. B. Thomas, and others.

R. E. PEARY,
Civil Engineer, U. S. N.

May 17th.

Have returned to this point. Reached 83° 50′ N. Lat. due north of here. Stopped by extremely rough ice, intersected by water cracks. Water sky to north. Am now going east along the coast. Fine weather.

May 26th.

Have again returned to this place. Reached point on East Coast about N. Lat. 83°. Open water all along the coast a few miles off. No land seen to north or east. Last seven days continuous fogs, wind, and snow. Is now snowing, with strong westerly wind. Temperature 20° F. Ten musk-oxen killed east of here. Expect start for Conger to-morrow.

At Cape Washington, also, I placed a copy of Lockwood's record, from the cairn at Lockwood Island with the following indorsement:

This copy of the record left by Lieut. J. B. Lockwood and Sergt. (now Colonel) D. L. Brainard, U. S. A., in the cairn on Lockwood Island southwest of here, May 16, 1882, is to-day placed by me in this cairn on the farthest land seen by them, as a tribute to two brave men, one of whom gave his life for his Arctic work.

May 29th, 1900.

For a few minutes on one of the marches the fog lifted, giving us a magnificent panorama of the north coast mountains. Very sombre and savage they looked, towering white as marble with the newly fallen snow, under their low, threatening canopy of lead-coloured clouds. Two herds of musk-oxen were passed, one of fifteen and one of eighteen, and two or three stragglers. Four of these were shot for dog-food, and the skin of one, killed within less than a mile of the extreme northern point, has been brought back as a trophy for the Club.

Once free of the fog off Mary Murray Island we made rapid progress, reaching Cape North in four marches from Cape Washington. Clear weather showed us the existence of open water a few miles off the shore, extending from Dome Cape to Cape Washington. At Black Cape there was a large open water reaching from the shore northward. Everywhere along this coast I was impressed by the startling evidence of the violence of the blizzard of a few days before. The polar pack had been driven resistlessly in against the iron coast, and at every projecting point had risen to the crest of the ridge of old ice, along the outer edge of the ice-foot, in a terrific cataract of huge blocks. In places these mountains of shattered ice were 100 feet or more in height. The old ice in the bays and fiords had had its outer edge loaded with a great ridge of ice fragments, and was itself cracked and crumpled into huge swells by the resistless pressure. All the young ice which had helped us on our onward passage had been crushed into countless fragments and swallowed up in the general chaos.

Though hampered by fog, the passage from Cape North to Cape Bryant was made in twenty-five and one-half marching hours. At 7 A. M. of the 6th of June we camped on the end of the ice-foot, at the eastern end of Black Horn Cliffs. A point a few hundred feet up the bluffs, commanding the region in front of the cliffs, showed it to be filled by small pieces of old ice, held in place against the shore by pressure of the outside pack. It promised at best the heaviest kind of work, with the certainty that it would run abroad at the first release of pressure.

The next day, when about one-third the way across, the ice did begin to open out, and it was only after a rapid and hazardous dash from cake to cake that we reached an old floe, which, after several hours of heavy work, allowed us to climb upon the ice-foot of the western end of the cliffs.

From here on rapid progress was made again, three more marches taking us to Conger, where we arrived at 1:30 A. M., June 10th, though the open water between Repulse Harbour and Cape Brevoort, which had now expanded down Robeson Channel to a point below Cape Sumner, and the rotten ice under Cape Sumner, hampered us seriously. In passing I took copies of the Beaumont English Records from the cairn at Repulse Harbour, and brought them back for the archives of the Club. They form one of the finest chapters of the most splendid courage, fortitude and endurance, under dire stress of circumstances, that is to be found in the history of Arctic explorations.

In this journey I had determined, conclusively, the northern limit of the Greenland Archipelago or land group, and had practically connected the coast southward to Independence Bay, leaving only that comparatively short portion of the periphery of Greenland lying between Independence Bay and Cape Bismarck indeterminate. The non-existence of land, for a very considerable distance to the northward and northeastward, was also settled, with every indication pointing to the belief that the coast along which we travelled formed the shore of an uninterrupted central Polar sea, extending to the Pole, and beyond to the Spitzbergen and Franz Joseph Land groups of the opposite hemisphere.

The origin of the floebergs and paleocrystic ice was definitely determined. Further than this, the result of the journey was to eliminate this route as a desirable or practicable one by which to reach the Pole. The broken character of the ice, the large amount of open water, and the comparatively rapid motion of the ice, as it swung round the northern coast into the southerly setting East Greenland current, were very unfavourable features.

During my absence some thirty-three musk-oxen and ten seals had been secured in the vicinity of Conger; caches for my return had been established at Thank God Harbour, Cape Lieber, and Lincoln Bay, and sugar, milk and tea had been brought up from the various caches between Conger and Cape Louis Napoleon.

July was passed by a portion of the party in the region from Discovery Harbour westward, *via* Black Rock Vale and Lake Hazen, where some forty musk-oxen were secured.

During August and early September various other hunting trips of shorter duration were made, resulting in the killing of some twenty musk-oxen.

1900–1901

In the middle of September I started with Henson and four Eskimos to Lake Hazen, to secure musk-oxen for our winter supply, it being evident that my ship would not reach us. Going west as far as the valley of the Very River, by October 4th, ninety-two musk-oxen had been killed. Later nine more were secured,

making a total of one hundred and one for the autumn hunting.

From the beginning of November to March 6th, the greater portion of the time was passed by my party in igloos built in the vicinity of the game killed in various localities, from Discovery Harbour to Ruggles River.

April 5th I left Conger with Henson, one Eskimo, two sledges and twelve dogs for my northern trip. At the same time the remainder of the party, with two sledges and seven dogs and pups, started south for Capes D'Urville and Sabine, to communicate with or obtain tidings of my ship. On reaching Lincoln Bay it was evident to me that the condition of men and dogs was such as to negative the possibility of reaching the Pole, and I reluctantly turned back.

Arriving at Conger, after an absence of eight days, I found the remainder of my party there. They had returned after an absence of four days, having proceeded one-third of the distance across Lady Franklin Bay. Fortunately, the night before I arrived, one of the Eskimos secured several musk-oxen above St. Patrick's Bay, which enabled me to feed my dogs before starting south, which I did with the entire party on April 17th.

April 30th, at Hayes Point, I met a party from the *Windward* attempting to reach Conger, and received my mail, learning that the *Windward* was at Payer Harbour with Mrs. Peary and our little girl on board. After a rest at the D'Urville box-house, I went on to the *Windward*, arriving May 6th.

After a few days' rest the work of establishing new caches along the coast northward, toward Conger, was commenced and continued until the middle of June. Then the preparing of Payer Harbour for winter quarters was carried on till July 3d, when the *Windward* broke out of the ice and steamed over to the Greenland side. July was devoted to killing walrus, and 128 were secured and transported to Payer Harbour.

August 4th, the *Erik*, sent up by the Club, in command of Secretary H. L. Bridgman, to communicate with me, arrived at Etah. The usual tour of visits to the Eskimo settlements was then made, and both ships pressed into the work of hunting walrus, until August 24th, when the *Windward* proceeded southward, and the *Erik* steamed away to land me and my party and the catch of walrus at Payer Harbour.

A large quantity of heavy ice blocking the way to Payer Harbour, I requested Secretary Bridgman to land me and my party and walrus meat, in a small bight, some twelve or fifteen miles south of Cape Sabine, from whence I could proceed to Payer Harbour in my boats or sledges when opportunity offered. This was done, and on the 29th of August the *Erik* steamed away.

1901–1902

On the 16th of September I succeeded in reaching Payer Harbour, crossing Ross Bay, partly by sledge and partly by boat, and going overland across Bedford Pim Island.

Soon after this my Eskimos began to sicken, and by November 19th six of them were dead. During this time I personally sledged much of the material from Erik Harbour to headquarters, and Henson went to the head of Buchanan Bay with some of the Eskimos, and secured ten musk-oxen.

The winter passed quietly and comfortably. Two more musk-oxen were secured in Buchanan Bay, and six deer at Etah.

January 2d, work was begun in earnest on preparations for the spring campaign, which opened on the 11th of February. On this day I sent off six sledges, with light loads, to select a road across the mouth of Buchanan Bay, and build an igloo abreast of Cape Albert. On the 12th I sent two of my best hunters on a flying reconnoissance and bear hunt, in the direction of Cape Louis Napoleon.

On the 13th eight sledges went out, taking dog food nearly to Cape D'Urville. On the 16th my two scouts returned with a favourable report, and on the 18th ten sledges went out loaded with dog-food to be taken to Cape Louis Napoleon. This party returned on the 22d. On the evening of the 28th, everything was in readiness for Henson to start the next day, it being my intention to send him on ahead with three picked men and light loads to pioneer the way to Conger; I to follow a few days later with the main party. A northerly gale delayed his departure until the morning of March 3d, when he got away with six sledges and some fifty dogs. Two of these sledges were to act as a supporting party as far as Cape Lawrence. At 9 A. M. of March 6th fourteen sledges trailed out of

Payer Harbour and rounded Cape Sabine for the northern journey, and at noon I followed them, with my big sledge, the "Long Serpent," drawn by ten fine grays. Two more sledges accompanied me. The temperature at the time was −20° F. The minimum of the previous night had been −38° F. We joined the others at the igloos abreast of Cape Albert and camped there for the night. Temperature −43° F. The next day we made Cape D'Urville in temperature from −45° to −49° F.

Here I stopped a day to dry our foot gear thoroughly, and left on the morning of the 9th with some supplies from the box house. Two sledges returned from here. Camped about five miles from Cape Louis Napoleon. The next march carried me to Cape Fraser, and the next to Cape Collinson. During this march, for the first time in the four seasons that I have been over this route, I was able to take a nearly direct course across the mouth of Scoresby Bay, instead of making a long detour into it.

One march from Cape Collinson carried me to Cape Lawrence, on the north side of Rawlings Bay. The crossing of this bay, though more direct than usual, was over extremely rough ice. Learning from Henson's letter at Cape Lawrence, that I had gained a day on him, and not wanting to overtake him before reaching Conger, I remained here a day, repairing several sledges which had been damaged in the last march. Five men with the worst sledges and poorest dogs returned from here. Three more marches took us to Cape L. von Buch on the north side of Carl Ritter Bay; temperature ranging from −35° to −45° F. Heavy going in many places.

Two more marches carried us to the first coast valley north of Cape Defosse. I had now gained two days on the advance party. The character of the channel ice being such that we were able to avoid the terrible ice-foot, which extends from here to Cape Lieber, and my dogs being still in good condition, I made a spurt from here and covered the distance to Conger in one march, arriving about an hour and a half after Henson and his party.

I had covered the distance from Payer Harbour to Conger, some 300 miles, in twelve marches.

Four days were spent at Conger overhauling sledges and harness, drying and repairing clothing, and scouting the country, as far as The Bellows, in search of musk-oxen. None were seen, but about 100 hare were secured in the four days. Temperature during this time from −40° to −57° F. Seven Eskimos returned from here, taking with them the instruments of the Lady Franklin Bay Expedition, and other items of Government property abandoned here in 1883.

On the morning of the 24th I started north with nine sledges. We camped the first night at "Depot B." The next march I had counted on making Lincoln Bay, but just before reaching Wrangel Bay a sudden furious gale with blinding drift drove us into camp at the south point of the bay. Here we were storm-bound during the 26th, but got away on the morning of the 27th and pushed on to Cape Union, encountering along this portion of the coast the steep side slopes of hard snow, which are so trying to men and sledges and dogs.

Open water, the clouds over which we saw from

Wrangel Bay Camp, was about 100 yards beyond our igloo, and extended from there, as I judged, northward beyond Cape Rawson, and reached entirely across the channel to the Greenland coast at Cape Brevoort, as in 1900.

Fortunately, with the exercise of utmost care, and with a few narrow escapes, and incessant hard work, we were able to work our sledges along the narrow and dangerous ice-foot to and around Black Cape.

The ice-foot along this section of the coast was the same as was found here by Egerton and Rawson in 1876, and Pavy in 1882, necessitating the hewing of an almost continuous road; but a party of willing, light-hearted Eskimos makes comparatively easy work of what would be a slow and heart-breaking job for two or three white men. Beyond Black Cape the ice-foot improved in character, and I pushed along to camp at the *Alert's* winter quarters. Simultaneously with seeing the *Alerts'* cairn three musk-oxen were seen a short distance inland, and secured. The animals were very thin and furnished but a scant meal for my dogs.

One march from here carried us to Cape Richardson, and the next under the lee of View Point, where we were stopped and driven to build our igloo with all possible speed by one of the common Arctic gales. There were young ice, pools of water, and a nearly continuous water-sky all along the shore.

As the last march had been through deep snow, I did not dare to attempt the English short cut across Feilden Peninsula behind Cape Joseph Henry, preferring to take the ice-foot route round it.

For a short distance this was the worst bit of ice-foot I have ever encountered. By the slipping of my sledge two men nearly lost their lives, saving themselves by the merest chance, with their feet already dangling over the crest of a vertical face of ice some fifty feet in height. At the very extremity of the cape we were forced to pass our sledges along a shelf of ice, less than three feet in width, glued against the face of the cliff at an elevation which I estimated at the time as seventy-five feet above the ragged surface of the floe beneath. On the western side of the cape the ice-foot broadened and became nearly level, but was smothered in such a depth of light snow that it stalled us and we went into camp. The next day we made Crozier Island.

During April 2d and 3d we were held here by a westerly storm, and the 4th and 5th were devoted to hunting musk-oxen, of which three were secured, two of them being very small. From here I sent back three Eskimos, keeping Henson and four Eskimos with me.

Reconnoissances of the polar pack northward were made with the glasses from the summit of the island and from Cape Hecla.

The pack was very rough, but apparently not as bad as that which I saw north of Cape Washington two years before. Though unquestionably difficult, it yet looked as though we might make some progress through it unless the snow was too deep and soft. This was a detail which the glasses could not determine.

On the morning of April 6th I left Crozier Island, and a few hours later, at the point of Cape Hecla, we swung

our sledges sharply to the right and climbed over and down the parapet of the ice-foot on to the polar pack. As the sledges plunged down from the ice-foot their noses were buried out of sight, the dogs wallowed belly deep in the snow, and we began our struggle due northward.

We had been in the field now just a month. We had covered not less than 400 miles of the most arduous travelling in temperatures of from −35° to −57° F., and we were just beginning our work, *i. e.*, the conquest of the polar pack, the toughest undertaking in the whole expanse of the Arctic region.

Some two miles from the cape was a belt of very recent young ice, running parallel with the general trend of the coast. Areas of rough ice caught in this compelled us to exaggerated zigzags, and doubling on our track. It was easier to go a mile round, on the young ice, than to force the sledge across one of these islands.

The northern edge of the new ice was a high wall of heavily rubbled old ice, through which, after some reconnoissance, we found a passage to an old floe, where I gave the order to build an igloo. We were now about five miles from the land.

The morning of the 7th brought us fine weather. Crossing the old floe we came upon a zone of old-floe fragments deeply blanketed with snow. Through the irregularities of this we struggled; the dogs floundering, almost useless, occasionally one disappearing for a moment; now treading down the snow round a sledge to dig it out of a hole into which it had sunk, now lifting the sledges bodily over a barrier of blocks;

veering right and left; doubling in our track; road-making with snowshoe and pickaxe.

Late in the day a narrow ditch gave us a lift for a short distance, then one or two little patches of level going, then two or three small old floes which, though deep with snow, seemed like a Godsend compared with the wrenching earlier work. We camped in the lee of a large hummock on the northern edge of a small but very heavy old floe, everyone thoroughly tired, and the dogs dropping motionless in the snow as soon as the whip stopped.

We were now due north to Hecla, and I estimated we had made some six miles, perhaps seven, perhaps only five. A day of work like this makes it difficult to estimate distances. This is a fair sample of our day's work.

On the 12th we were storm-bound by a gale from the west, which hid even those dogs fastened nearest to the igloo. During our stay here the old floes on which we were camped split in two with a loud report, and the ice cracked and rumbled and roared at frequent intervals.

In the first march beyond this igloo we were deflected westward by a lead of practically open water, the thin film of young ice covering it being unsafe even for a dog. A little further on a wide canal of open water deflected us constantly to the northwest and then west until an area of extremely rough ice prevented us from following it farther. Viewed from the top of a high pinnacle this area extended west and northwest on both sides of the canal, as far as could be seen. I I could only camp and wait for this canal, which evi-

dently had been widened (though not newly formed) by the storm of the day before, to close up or freeze over. During our first sleep at this camp there was a slight motion of the lead, but not enough to make it practicable. From here I sent back two more Eskimos.

Late in the afternoon of the 14th the lead began to close, and hastily packing the sledges we hurried them across over moving fragments of ice. We now found ourselves in a zone of high parallel ridges of rubble ice covered with deep snow. These ridges were caused by successive opening and closing of the lead. When, after some time, we found a practicable pass through this barrier, we emerged upon a series of very small but extremely heavy and rugged old floes; the snow on them still deeper and softer than on the southern side of the lead. At the end of a sixteen-hour day I called a halt, though we were only two or three miles north of the big lead.

During the first portion of the next march we passed over fragments of very heavy old floes slowly moving eastward. Frequently we were obliged to wait for the pieces to crush close enough together to let us pass from one to the other. Farther on I was compelled to bear away due east by an impracticable area extending west, northwest, north and northeast as far as could be seen, and just as we had rounded this and were bearing away to the north again, we were brought up by a lead some fifty feet wide. From this on, one day was much like another, sometimes doing a little better sometimes a little worse, but the daily advance, in spite of our best efforts, steadily decreasing. Fog and stormy weather also helped to delay us.

I quote from my Journal:

April 21st.—The game is off. My dream of sixteen years is ended. It cleared during the night and we got under way this morning, Deep snow. Two small old floes. Then came another region of old rubble and deep snow. A survey from the top of a pinnacleshowed this extending north, east and west, as far as could be seen. The two old floes, over which we had just come, are the only ones in sight. It is impracticable and I gave the order to camp. I have made the best fight, I knew. I believe it has been a good one. But I cannot accomplish the impossible.

A few hours after we halted there came from the ice to the north a sound like that made by a heavy surf, and it continued during our stay at this camp. Evidently the floes in that direction were crushing together under the influence of the wind, or what was, perhaps, more probable, from the long continuation of the noise, the entire pack was in slow motion to the east. A clear day enabled me to get observations which showed my latitude to be 84° 17′ 27″ N., magnetic variation, 99° west. I took some photographs of the camp, climbed and floundered through the broken fragments and waist-deep snow for a few hundred yards north of the camp, gave the dogs a double ration, then turned in to sleep, if possible, for a few hours preparatory to returning.

We started on our return soon after midnight of the 21st. It was very thick, with wind from the west and snowing heavily. I hurried our departure in order to

utilise as much of our tracks as possible before they were obliterated. It was very difficult to keep the trail in the uncertain light and driving snow. We lost it repeatedly, when we would be obliged to quarter the surface like bird dogs. On reaching the last lead of the upward march, instead of the open water which had interrupted our progress then, our tracks now disappeared under a huge pressure ridge, which I estimated to be from seventy-five to one hundred feet high. Our trail was faulted here by the movement of the floes, and we lost time in picking it up on the other side.

This was to me a trying march. I had had no sleep the night before, and to the physical strain of handling my sledge was added the mental tax of trying to keep the trail. When we finally camped, it was only for a few hours, for I recognised that the entire pack was moving slowly, and that our trail was everywhere being faulted and interrupted by new pressure ridges and leads, in a way to make our return march nearly, if not quite, as slow and laborious as the outward one. The following marches were much the same. In crossing one lead I narrowly escaped losing two sledges and the dogs attached to them. Arrived at the "Grand Canal," as I called the big lead at which I had sent two Eskimos back, the changes had been such as to make the place almost unrecognisable.

Two marches south of the Grand Canal the changes in the ice had been such, between the time of our upward trip and the return of my two men from the canal, that they, experienced as they were in all that pertains

to ice-craft, had been hopelessly bewildered and wandered apparently, for at least a day, without finding the trail. After their passage other changes had taken place, and, as a result, I set a compass course for the land, and began making a new road. In the next march we picked up our old trail again.

Early in the morning of the 22d, we reached the second igloo out from Cape Hecla, and camped in a driving snowstorm. At this igloo we were stormbound during the 27th and 28th, getting away on the 29th in the densest fog, and bent on butting our way in a "bee" line compass course, for the land. Floundering through the deep snow and ice, saved fom unpleasant falls only by the forewarning of the dogs, we reached Crozier Island after a long and weary march. The band of young ice along the shore had disappeared, crushed up into confused ridges and mounds of irregular blocks.

The floe at the island camp had split in two, the crack passing through our igloo, the halves of which stared at each other across the chasm. This march finished two of my dogs, and three or four more were apparently on their last legs. We did not know how tired we were until we reached the island. The warm foggy weather and the last march together dropped our physical barometer several degrees.

As we now had light sledges, I risked the short cut across the base of Feilden Peninsula and camped that night under the lee of View Point. Four more marches carried us to Conger, where we remained three days, drying clothing and repairing sledges, and giving the dogs a much-needed rest. Leaving Conger on the 6th

SIDE

FRONT

HEAD OF RANGIFER PEARYI, ALLEN. Killed near Cape Joseph Henry, October, 1905

AHNGMALOKTO

PEWAHTO

AHNGODOBLAHO

PANIKPAH

ESKIMOS OF THE "FARTHEST NORTH" PARTY

of May, eleven marches brought us back to Payer Harbour on the 17th of May. A few days after this I went north to complete the survey of the inner portions of Dobbin Bay, being absent from headquarters some ten days. Open water vetoing a trip which I had planned for June up Buchanan Bay and across to the west coast of Ellesmere Land, the remainder of the time was devoted to assiduous hunting, in order to secure a supply of meat for the winter, in the contingency of no ship arriving.

On the 5th of August the new *Windward*, sent north by the Club, and bringing to me Mrs. Peary and my little girl, steamed into the harbour. As soon as people and supplies could be hurried aboard her, she steamed across the Sound to the Greenland side. Here my faithful Eskimos were landed, and, after devoting a week or so to the work of securing sufficient walrus to carry them in comfort through the winter, the *Windward* steamed southward, and, after an uneventful voyage, arrived at Sydney, C. B., on the 17th of September, where I had the pleasure of meeting Secretary Bridgman, of the Club, and forwarding through him a brief report of my movements during the past year.

A New Caribou from Ellesmere Land*

BY J. A. ALLEN

The valuable natural history material brought by the Arctic explorer, Commander R. E. Peary, U. S. N., to the American Museum of Natural History on his

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return from his recent long sojourn in the high North contains five specimens of Caribou taken in Ellesmere Land, Lat. 79°, in June, 1902. They comprise four flat skins of adults without skulls, and more or less defective, and the complete skin of a young fawn. In colouration they are strikingly different from any other known Caribou, being pure white except for a large dark patch on the middle and posterior part of the back.

ELLESMERE LAND CARIBOU

Rangifer Pearyi, sp. nov.

Type, No. 19231 ♂ ad., Ellesmere Land, N. Lat. 79°, June 15, 1902, Commander Robert E. Peary, U. S. N.

Entire animal pure white except an oval grayish brown patch over the posterior half of the dorsal surface, gradually fading into white toward the shoulders, the hair being white to the base, or of a pale shade of lilac below the surface, where the surface colour is white. The dorsal patch occupies an area of about 670 mm. in length by 350 mm. in width, and is drab-gray, divided by a very narrow median line of white. The legs and feet are wholly white; the ears are slightly tinged with gray, the hair beneath the surface being plumbeous and showing slightly at the surface. The antlers are just budding, being represented by small protuberances, about an inch and a half in length, covered with short hair. Total length of flat skin, 1660 mm. Corresponding measurement of flat skins of the dark form of Caribou from Greenland, 1820 mm.

A female (No. 19232) is similar, except that the dark dorsal area extends a little further forward at the shoulders, and is a little darker. As in the male, the patch fades out to whitish toward the shoulders. Length of the flat skin, 1560 mm.

Two other females are similarly marked, but the dorsal patch in both is much darker, approaching dark slate gray. The region around the base of the antlers and ears is clouded with grayish, as are the edges of the ears; the front surface of the forelegs is dark grayish brown, and of the hind legs faint buffy grayish brown, increasing in amount and intensity apically from the tarsal joint to the hoofs. These skins measure respectively 1610 and 1570 mm. in total length. In one the antlers form knobs an inch or two in height, covered with short hair.

A fawn (No. 19235), a few weeks old, is grayish white on the head, ears, neck, limbs, ventral surface and sides of the body, the hairs being

dusky basally and broadly tipped with white, the dusky basal portion showing through the white enough to give a general dingy effect. The top of the nose and a narrow band bordering the nostrils are blackish, passing posteriorly on the upper part of the rostrum into brownish dusky; a broad central band from the nose nearly to the ears is darker or more dingy than the sides of the face; a rusty brownish spot marks the point where the antlers are to appear, and there is a faint rusty wash on the sides of the face both before and behind the rusty antler spots. The back is marked by a strongly defined, very narrow, ferrugineous line, running from the nape to the base of the tail, which, over the middle of the back, broadens a little and darkens to deep dusky ferruginous; the whole dorsal area, from a little behind the shoulders to the rump, is pale fawn colour, darkest medially and fading out on the sides to pale buffy white. This coloured area corresponds in position and outline with the dark dorsal patch of the adults. A narrow, ill-defined, dusky chestnut-brown band borders the hoofs of all the feet, but is rather broader and more distinct on the hind feet than on the fore feet. The tail is wholly white to the base, as in the adults.

The adult specimens, though killed in June, are in winter coat, the hair being long, thick, and very soft, much softer and finer than in the Greenland Caribou, and the skins are also much thinner and softer. The skin of the fawn was preserved in brine, which may have slightly intensified or darkened the buffy shades of the dorsal surface.

Rangifer Pearyi is evidently a very distinct insular form, very different from *R. Grœnlandicus* in colouration and doubtless in other features. Unfortunately only flat skins are available for examination. Specimens of *R. Grœnlandicus* in corresponding pelage are dark slaty brown above, this colour fading gradually on the sides to the white of the ventral surface, the Greenland Caribou being very much darker in its winter pelage than the Newfoundland Caribou, which heretofore has been the whitest known form of the group.

I am indebted to Commander Peary for the following information regarding the occurrence of Caribou in Ellesmere Land. In a letter dated Philadelphia, October 13, 1902, he says: "In answer to your inquiries I will say that remains and traces of reindeer have been noted by previous explorers at the following points in Ellesmere Land and Grinnell Land: Alexandra Haven, Ellesmere Land; Rawlings Bay, Grinnell Land, and in the Fort Conger region, Grinnell Land; and an antler was picked up by a member of my party in the summer of 1901 at Erik Harbour, some twelve miles south of Cape Sabine. The published reports of Sverdrup's expedition state that he found reindeer in abundance on the west side of Ellesmere Land.

"I have seen many winter coats of the Greenland Caribou and they are pronouncedly darker than the Ellesmere specimens."

THE ARCTIC S. S. "ROOSEVELT"

CHAPTER XVI

THE ARCTIC S. S. "ROOSEVELT"

IN JULY, 1904, in one of the charming villas overlooking the city of Bar Harbor a meeting took place, small as to numbers but weighty with importance in the affairs of the Peary Arctic Club, for at that meeting was taken the formal step which meant the building of the *Roosevelt.*

Four men were present at the meeting: Morris K. Jesup, Lewis L. Delafield his counsel, Captain Charles B. Dix, and myself.

Mr. Jesup had stated some time previous, that if subscriptions to the Peary Arctic Club could be secured to the amount of £10,000, including his own generous check for not less than half that sum, he would assume responsibility for the construction of the ship and guarantee the contract, thus insuring the construction of the ship in time to go North in 1905, and giving nearly a year additional time in which to secure the additional funds necessary.

Up to this time the interest had not been particularly widespread. The amount of subscriptions was still short of £10,000, but time was pressing and the material must be ordered at once in order to give even a reasonable chance of completing the ship in time.

Personally I felt no doubt but what the total amount of money could be raised, and yet it must be admitted

that the prospects were none too favourable and discussion did not seem to appreciably clear the situation.

Mr. Jesup was as deeply interested as I, and was not only willing but anxious to do everything in his power to put the matter through, but he hesitated at assuming too much responsibility because, as he frankly told me, he did not feel, much as he wished to, that he could properly assume the entire burden of the expedition.

Finally Captain Dix said that he would order the timber for the building of the *Roosevelt* on his own responsibility; that he believed the money would be raised, and that if it were not, he would assume whatever loss might result from his action. His statement was like a ray of sunlight both to Mr. Jesup and myself, for it brought out clearly the fact that there was something in the project which appealed irresistibly to business men of big ideas.

The next scene which I recall most distinctly was in another beautiful villa in Vermont, commanding miles and miles of beautiful country and with a regal mountain and forest domain back of it. It was just before the 1st of August, the date on which the £10,000 must be subscribed to insure the signing of the contract for the construction of the ship. The total still fell several thousands short of that amount. Mr. Colgate had already promised a generous check with an intimation that he might increase it if it were necessary.

At this meeting there were but three: Mr. Colgate, Judge Darling, Assistant Secretary of the Navy, and myself. The situation was presented to Mr. Colgate, and with characteristic promptitude and generosity

CAPTAIN CHAS. B. DIX, BUILDER OF THE "ROOSEVELT"

THE "ROOSEVELT" ON HER TRIAL TRIP, JUNE, 1905

THE PEARY ARCTIC CLUB'S S. S. "ROOSEVELT"

his check was increased by an amount that rounded out the £10,000 and so the building of the *Roosevelt* became a certainty.

In approaching the general question of a ship for Arctic or Antarctic ice navigation, one thing is immediately apparent to anyone at all conversant with the matter, *i. e.*, that she should be as small as is consistent with carrying the party, supplies, equipment, and coal for the work planned.

The reasons for this are evident. The smaller a ship is, the stronger she is, and the more easily handled.

In looking for facts to show the results of past experience in this field, it is at once discovered that practically all ice boats past and present have been built by the three countries, Scotland, the United States, and Norway, for the prosecution of the whale and seal fisheries.

In this work the Norwegians have operated in the seas about Spitzbergen, Jan Mayen, East Greenland, and Nova Zembla; the United States in Hudson Bay and Bering Sea; and the Scotch principally in the chain of waters comprising Davis Strait, Baffin Bay, Lancaster Sound and their tributaries, with a few voyages to East Greenland and Hudson Bay.

The ice conditions encountered by the Norwegians and Americans may be very broadly stated as floes and broken ice drifting in an open sea, through which the ships have to thread their way.

The ice conditions encountered by the Scotch whalers, are a nearly solid expanse of one season's ice in Melville Bay, and when that is passed, heavy ice in narrow land-locked channels, notorious for their

strong currents, the direction of which is opposed to the course of the whalers.

It has been said by one writer that the American whalers use their steam to keep out of the ice, while the Scotch use theirs to get into and through it.

Comparing existing ships of the Scotch, Norwegian, and United States whaling fleets, it is found that the following average proportions of beam to length exist:

Scotch,	1:5.75
Norwegian,	1:4.7
American,	1:4.5

It is seen at once that the Norwegians and Americans have not departed from the old-fashioned sailing ship model. (The average ratio in our modern Bath-built schooners is 1:4.78.)

The Scotchmen have a finer model, and since this model is a practical evolution by shrewd seamen and builders from an experience of over one hundred and twenty-five years, in a business where large financial returns were the lot of the best ship; and the seas where that experience was secured and for which that evolution was designed, are the seas to be navigated by the proposed ship, it seemed clear that the Scotch model was the one on which to base our studies.

The problem of size did not present itself in the present instance in quite the form that it did to Nansen, and the English and German Antarctic Expeditions. In these instances the size of the party and the length of time it was to be absent being determined upon, and the coal consumption of the engines fixed, it was easy to calculate the cargo to be carried which, plus the

dead weight of the ship and machinery, gave at once the displacement needed.

In the present case it was regarded as practicable to determine in advance upon a size and proportion of ship which should most nearly balance and meet the various requirements, and let the difference between her displacement, and her own dead weight, go for cargo capacity, of which the greater portion would be coal.

The size fixed upon was 184 feet over all by 35 feet beam by 16 feet draft, loaded. (Load water-line 166 feet.) This gives a ship of nearly the same length, but a little greater beam than the English Antarctic ship, *Discovery*. Her length ratio would be 1:5.26, not quite as fine as the Scotch average, but much finer than the Norwegian or American models.

Such a ship is in the same class as the *Terra Nova*, *Bear*, *Thetis*, and *Neptune* of existing whalers, the *Proteus* (lost), and the exploring ship *Discovery*.

Length and beam having been determined, the form of hull was next to be considered. In the navigation of the particular regions contemplated by the Expedition, a light draft is preferable to a heavier one, as enabling the ship to go closer to the shore, and thus get round a barrier, or retreat close in shore from advancing heavy ice, and let it ground outside of the ship.

The element of light draft also enters into the consideration of the lifting of the ship under heavy pressure from ice floes. The deeper a ship is in the water, the more difficult will it be for her to rise and save herself.

It has been well said that while a form of hull that

would allow a ship to rise easily and readily under ice pressure is desirable, and this desirability has been recognised, no ship previous to the *Fram* had been built to meet that requirement.

In the *Fram* almost everything else was sacrificed to this requirement. Seaworthiness was sacrificed, and as the *Fram's* experience in her two voyages shows, ability to make her way through ice was sacrificed.

For the purpose for which she was designed, *i. e.*, to enter the ice and then drift with it, evading destruction from ice pressure, she was well adapted, but as the designers of the German Antarctic ship *Gauss* said in discussing the *Fram* model, she would have been even better adapted for this had she been bowl-shaped.

Contrary to popular ideas, the work which an Arctic ship has to do is not principally that of breaking up one season's ice, as is done by harbour and river ice-breakers, in Canadian and Russian waters for instance. Such conditions of level, unbroken ice of uniform thickness are found only in Melville Bay on the upward voyage, where the one-season ice is encountered, and late in the season when the new ice is beginning to form. The main work of the Arctic ship is that of threading and pushing and wedging and prying her way among and between and around fragments and cakes and large floes of ice, the latter of such thickness (twenty to fifty or seventy feet) that nothing could break a passage through them. Of course, nothing can be done but squeeze a way around these. It is for this reason that the powerful Russian *Ermack* is not available for a Polar voyage, and why she is not treated of in this discussion. Fifty *Ermacks* merged in one could

not break through these floes, and in squeezing around them the *Ermack* could not carry enough coal to take her half-way to the Pole.

To return to the hull model. In the *Fram* everything was sacrificed to secure certainty of lifting under pressure. In the *Gauss*, which is a modified *Fram*, while the broad beam of the *Fram* (thirty-six feet) was retained, greater length was given the ship to render her a better sea boat for the long voyage from Germany to the Antarctic Circle. Her ratio is 1 to 4.25 as compared with the *Fram's* 1 to 3.25. The *Gauss's* draft, however, is excessive (nineteen feet).

As already noted, great draft is a disadvantage in the region under consideration, and every increase in beam makes impassable leads which otherwise would be available, and greatly increases the power required and the difficulties of pushing a way through loose ice.

The English *Discovery* was built, as was to be expected, on the lines of the Scotch whalers, with a little broader beam. Her ratio is 1 to 5.27. Her draft is a little less than that of the whalers. She was not specially modelled to rise under pressure, but was specially constructed (as the *Fram* and *Gauss* were not) for ramming a way through opposing ice.

The model selected for the *Roosevelt* was intended to meet the requirements of lifting under pressure, of being short enough to handle easily, and of being able to ram a passage through heavy ice effectively and continuously.

Detailed features of these requirements are as follows:

For lifting under pressure, steel-sheathed sides,

sloping bilges, flat floor to prevent heeling when lifted, flush stem and keel, raking stem, raking stern (this a new feature). For forcing a way through loose ice: sharp wedge bow, and full counter to keep ice from propeller. For ramming ice: a sharply raking stem, steel-sheathed.

From this general description, it will be understood that while the hull model contained the best features of preceding ships, it was not a departure from ordinary models, like the *Fram* and *Gauss*, but rather a modification of them to meet special requirements.

When the question of power was approached, there was a radical departure, in fact a complete reversal of previous practice in Arctic ships, and the adoption of ordinary commercial practice.

Hitherto Arctic ships have had full sail power (full-rigged bark being the favourite rig) and auxiliary engines, often of surprisingly puny power. The object of this has been economy of coal, and the consequent ability of the ship to cover long distances at slow speed, and remain away from home for a period of years.

The *Roosevelt* is a powerful steamer, with all the engine force she could contain, and with only moderate sail area. There is no question in my mind but that this is the correct principle upon which to build a modern Arctic ship for effective results.

The Smith Sound or "American" route is especially advantageous for this method, presenting a coasting voyage, facilities for placing coal depots, the key of the route condensed in a few hundred miles of heavy ice navigation, and the possibility of even obtaining coal *in situ* along the route.

The *Roosevelt* had engines capable of developing one thousand horse-power. They were of the inverted, compound type, driving a single eleven-foot propeller, and steam was supplied by two water-tube boilers and one Scotch boiler. Her sail plan is a light, American, three-masted schooner rig, possessing the advantage of light weight (it is to be remembered that every pound of weight saved in rigging or fitting means a pound of coal in the hold), and small surface to be forced through a head wind; yet sufficient to materially help the engines in a favouring wind, and to enable the ship to make her way home should her coal be exhausted.

As to construction: The strength of the hull must be such that it will resist the terrific pressure of the ice-floes, and keep its shape intact until the lifting of the ship bodily releases the pressure; such that if supported at each end only, or in the middle only, or thrown up on the ice and resting upon her bilge, during the paroxysms of the floes, she will not be strained or injured; and such that she can ram the ice by the hour when necessary, without injury to seams or fastenings.

It is a popular fallacy that steel is a suitable material for the construction of an Arctic ship. A steel ship, though structurally strong, is peculiarly vulnerable locally to the ragged, rock-like tongues and corners of heavy Arctic ice.

The elasticity, toughness and resiliency of thick wooden sides are essential in an Arctic ship; but the wood planking may be steel-sheathed on the outside to enable the ship more easily to slip from the grip of the ice, and the methods of composite ship building

may be utilised in the interior of the vessel, to reduce weight, while at the same time increasing its structural strength, and not lessening the strength and rigidity of the interior bracing.

In the interests of strength, the frames of the *Roosevelt* were made treble, keel, keelson, stem and stern-post exceptionally strong; the planking is double; the deck beams, and especially the 'tween-deck beams, which are to be just below the water-line, are extra heavy, and spaced more closely than usual. Additional struts from the bilges, and strong posts rom the keelson, longitudinal tie plates at the water-ways and on the upper deck beams, and transverse bulkheads, add still further to her great strength.

In the interest of lightness there is no 'tween-deck planking, no interior fittings; and the spars and rigging are made as light as possible.

The keel, false keel and keelsons are of oak, and form a rigid backbone to the ship six feet in height. The stem and rudder and propeller posts also are of massive oak timbers, the former having a depth on the ship's axis of seven to ten feet, to take the blows when ramming ice. The frames also are of oak, placed almost close together, and each composed of three thicknesses of timber bolted together to give great strength. The planking is double, yellow pine inside and oak outside.

The sides of the ship are from twenty-four to thirty inches thick.

To keep even these heavy sides from being crushed in, they were reinforced by heavy deck beams placed unusually close together, and a lower tier of heavy

A STUDY IN BRONZE
Typical face of Eskimo woman

AHWEAHGOODLOO

Four-year-old Eskimo girl dressed in blue fox kapetah and sealskin kamiks

beams just below the water-line forming with steel rods and inclined posts and struts to the ship's sides and bilges, a strong truss at an interval of every four feet in the length of the ship.

The housing of the personnel of the expedition in light structures on deck, which personal experience has shown to be much the simpler and better plan than below decks, permits a stronger and more effective arrangement of these trusses than has been attained in previous ships. The interior of the bow, which is to the ship what the *cestus* was to the ancient gladiator, is filled in solid with timbers and iron.

The stern also, as well as the stem, is iron-plated, and the rudder post, which is the Achilles's heel of an Arctic ship, is of unusually strong construction. The rudder is so arranged that it can be hoisted on deck out of the way of the ice if necessary. The propeller is so arranged that it can be used either as a two-bladed or a four-bladed propeller, and is made of unusual strength. Powerful deck appliances in the shape of windlass, steam capstans and winch, enable the ship to warp herself out of a dangerous place, or pull herself off the bottom should she get aground.

The whole plan and theory of the ship was, first, that her strength, her power, her weight, her carrying capacity, should all be below the main deck, and that everything above deck—houses, bulwarks, spars, sails, rigging, boats and equipment—should be as light as possible, to permit more coal in the hold; and second, that not a dollar was to be wasted on fittings or frills, everything to be for strength, power, and effectiveness.

The keel of the *Roosevelt* was laid October 15, 1904,

in the McKay & Dix shipyard at Bucksport, Maine, and the ship was launched the 23d of March, 1905, Mrs. Peary shattering a block of ice containing a bottle of champagne against the steel-clad stem as the hull glided down the ways and christening the ship *Roosevelt*.

The installation of the machinery began two days later at Portland, Maine, and was practically completed in less than two months.

The official measurements of the ship are as follows: length, 184 feet; breadth, 35.5 feet; depth, 16.2 feet; gross registered tonnage, 614 tons; maximum load displacement, about 1,500 tons. The backbone of the ship, viz.; keel, main keelson, stem and stern posts, as also her frames, plank sheer, the waterways, and garboard strake, are white oak. Beams, sister keelsons, deck clamps, 'tween-deck waterways, bilge strakes, ceiling, and inner course of planking, yellow pine. Outer planking, white oak, and decks, Oregon pine. Both the ceiling and outer course of white oak planking are edge-bolted from stem to stern and from plank sheer to garboard strake. The fastenings are galvanised iron bolts, going through both courses of planking and the frames, and riveting up over washers on the inside of the ceiling.

Special features of the ship are as follows:

First, in model, a pronounced raking stem and wedge-shaped bow; very sharp dead rise of floor, affording a form of side which cannot be grasped by the ice; a full run to keep the ice away from the propeller; a pronounced overhang at the stern to still further protect the propeller, and a raking sternpost.

Second, peculiarities of construction; the unusual

fastening, as noted above; the unusual and massive arrangement of the beams, and bracing of the sides to resist pressure; the introduction of screw tie rods to bind the ship together; the development of the 'tween-deck beams and waterways on a water line, instead of on a sheer, like the upper-deck beams; the placing of the ceiling continuous from sister keelson to upper-deck clamps, and the placing of the 'tween-deck waterways, deck clamps, and the bilge strakes on top of the ceiling; the filling in of the bow almost solid where it meets the impact of the ice; the massive and unusual reinforcement of the rudder post to prevent twisting; the adoption of a lifting rudder, which may be raised out of danger from contact with the ice; the armouring of the stem and bows with heavy plates of steel; the protection of the outer planking with a 2-inch course of greenheart ice sheathing.

Peculiarities of rig are: pole masts throughout; very short bowsprit, which can be run inboard when navigating in ice of considerable elevation; three-masted schooner rig with large balloon staysails. The *Roosevelt* carries fourteen sails, including storm staysails, and has a sail area somewhat less than that of a three-masted coasting schooner of the same size.

Peculiarities of the machinery installation are: a compound engine of massive construction; an unusually heavy shaft of forged steel 12 inches in diameter; a massive propeller 11 feet in diameter, but with blades of large area, which are detachable in case of injury; a triple boiler battery; arrangements for admitting live steam to the low-pressure cylinder, in order to largely increase the power for a limited time; an

elliptical cruiser-type smoke-stack to reduce wind resistance.

The best quality of material and labour were put into the ship, and it was believed and has since been proven that she is the ablest ship ever built for Arctic exploration.

MY ESKIMOS

CHAPTER XVII

MY ESKIMOS*

PLUMP and rounded figures, emphatically expressive countenances, bronze-skinned, keen-eyed, black-maned inhabitants of an icy desert; simple and honest, occasionally sulky; wandering, homeless people: these are my children, the Eskimos.

Their origin, no one can tell to a certainty; but their appearance indicates the strong probability of the correctness of the theory advanced by Sir Clements Markham, distinguished President of the Royal Geographical Society of London, that these people are remnants of an ancient Siberian tribe, the Onkilon. Many of them are of strikingly Mongolian type of countenance.

What first impresses one is their inquisitiveness. Dr. Hayes records the case of an Eskimo woman who had subjected herself to a temperature of thirty-five degrees below zero, with the liability to be caught in a gale; she had travelled forty miles over a track, the roughness of which frequently compelled her to dismount from the sledge and walk; she had carried her child all the way; her sole motive being her curiosity to see the white men, their igloo (hut), and their strange treasures.

*For portions of this chapter taken from Peary's "Northward," the courtesy of the Frederick A. Stokes Company is hereby gratefully acknowledged.

Imagine, then, the arrival of a box—which most probably in a civilised community, would be looked upon as a cartload of rubbish. Placed within the vision of the unspoiled Eskimo, it becomes transformed into Dantes's grotto filled with "such stuff as dreams are made of." With fox-like inquisitiveness, the object is approached. Each article is touched, felt and examined; and later, as the "village gossips" get together, we listen to the cheery verboseness of "Sairy Gamp" and Megipsu, discussing the riches of the *Koblunah* (white man).

In a country where men, women and children exist in complete isolation, where vegetation, mineral matter and even so common a thing as salt are unknown —the people's capacity for imitation would ordinarily be wholly a matter of conjecture; but when brought in contact with my expedition the Eskimos have shown wonderful characteristics of Oriental imitation and adaptation. If given a gun, a hatchet, or a knife as a model they will reproduce these in miniature, in walrus ivory, with a faithfulness and accuracy that seems almost startling in view of their tools and previous lack of training. The men also pick up with great ease and celerity the use of the tools of the blacksmith and the carpenter.

In 1897, an Eskimo boy was brought to New York, partly because of his unquenchable thirst for novelty and adventure, and also because we had here a good opportunity for studying the effects of outside influence upon primitive innocence. Within a comparatively short period, this lad acquired a good understanding of the English tongue; and, in studies as

INUAHO
Eskimo girl and dog

AKATINGWAH
Wife of Ooblooyah, with baby

well as in athletics, he has been considered a match for the average American youth of his age.

In their own country, Eskimos care little or nothing about acquiring the use of our language. The fact is, their savage environment and continuous struggle for existence is hardly conducive to learning of any kind, beyond the absolute necessaries. Some of the tribe were taught the use of numerals, the alphabet, and a few easy words; and, parrot-like, these pupils had an embarrassing aptitude for picking up the loose words of the sailors. But as to a common means of communication, their good sense argued that it was much the simpler for us to learn *their* language.

Their vocabulary is composed of many complicated prefixes and suffixes, and roughly speaking, several hundred radicals. Naturally quick-witted, they find no difficulty in expression; and throughout their conversations, the features and the entire body are brought into play. I have often observed the remarkable animation of the eye, the sudden twitching of the mouth, the laggard or the swift movement of the arms and legs, when an Eskimo tells his story. It is thus he excites interest, and the audience is held by the unstudied dramatic effect.

Shall we mention it? In the Arctic regions as is the case all over the universe, Woman holds the reputation for loquacity; hers is the "last word."

Churches, schools, and governments are unknown quantities. Yet in every home a perfect system of training goes on for the benefit of the rising generation. At the earliest age an Eskimo lad will be taught the use of his arms in the throwing of a harpoon; a little

later he learns the hitching up of dog-teams to sledges; and by the time he has lived twelve winters, he is taken to the walrus hunting ground to learn to be a man.

An Eskimo mother loses no time in teaching her daughter the requirements of a good wife. Household duties are as carefully practised (allowing for differences in materials) as in any domestic circle. Sewing is taught by the fond parent, with as much patience as was ever evinced by Griselda. At fourteen or earlier, the young Miss is ripe for marriage.

During my fifteen years of experience with the Eskimos, I have seen little of the savage treachery which is so frequently alluded to. Quite the contrary. These people are subservient to us in a most gratifying way. It is true that in the beginning of our adventures, they were inclined to scoff at our awkward adaptation to Polar conditions; but as we acquainted them with the use of compass, etc., their laughter soon changed to expressions of admiration and wonder.

The position of the sun and the movements of the stars, are the Eskimos' gauges for time and location. Thus it will be seen that their ideas of astronomy are definite, though necessarily limited. For the benefit of those who have not read my previous work, I shall retabulate what significance celestial bodies have to Eskimos. They recognise the Great Dipper as a herd of reindeer; the three triangular stars of Cassiopeia are the three stones supporting a celestial stone lamp; the Pleiades are a team of dogs in pursuit of a bear; the three glittering brilliants of the belt of Orion are the steps cut by some celestial Eskimo in a steep

snow-bank to enable him to climb to the top; Gemini are the two door stones of an igloo; Arcturus and Aldebaran are personifications; and the moon and the sun are a maiden and her pursuing lover. Less observant than were the Arab shepherds, they have not noticed that one star is the centre about which all the others move, nor have they set apart the planets, which to them are simply large stars. Probably this is due to the fact that the movements of the stars can be observed during only three months of the year.

Amongst themselves, punctuality is a thing of small value. Yet, I have never known the time when I could not thoroughly trust my "old guard," among these people, for carrying out my orders. When told to get ready for a certain time—say, daybreak, next morning—sledges would be found packed, and everything arranged with the utmost precision.

Their sense of humour is very pronounced. It is seen in their nicknames for each other, and particularly for the white men, and again in their drawings. These latter, crude as they are, leave no doubt as to the victim. Bow-legs, hooked nose, protuberant stomach, such deformities as these are gleefully pounced upon by the local artists, and emphasised in their portraiture.

Much skill is shown in their carvings. To look at the minute walrus teeth, one-half inch in length, which have been wrought upon, one is reminded over and over again of the dexterity of the Chinese and the Japanese. Notwithstanding all this ingenuity in ornamentation, Eskimos find little pleasure in trinkets or personal frills of any kind. Remembering the stories of

Captain John Smith and the Indians, bracelets, beads and rings were taken North in our first trips, in the expectation of finding appreciation. At most, these were received with gratitude for the good will. None of the women wore them or seemed particularly to care for them. Occasionally they were brought forth from a peg in the wall where they had hung for some time, and examined with a certain air of curiosity. But as for adorning themselves—such vanities did not occur to them.

The *tupiks* (tents) and *igloos* (winter-houses) are all built after the same plans. There is only the superiority of workmanship to distinguish the abode of one man from another. We sometimes see an interesting form of competition when two huts commence building simultaneously: One man, Nupsah, has discovered a huge stone and succeeds in placing it in position. The neighbours, by their approving glances, proclaim him master builder. Presently, Pooadloonah finds a larger stone than any secured by his rival. This is placed in position, silently. Throughout the proceeding not a word has been spoken; yet within that conqueror's breast there thrills an indisputable note of triumph and satisfaction. It is the peculiarity of this silent competition that, even when extended to greater deeds than the hauling of stones, the best of good nature is preserved on both sides.

Duels and battles never take place; and there is only one case of Eskimo murder which comes within my experience.

Kyo was an *angakok* (medicine man). He knew exactly how many *sinnipahs* (sleeps) would elapse

before this or that man would die—almost as well as our weather bureau can prophesy the coming of a storm. Often he went into trances, for this is necessary when one is an *angakok*. But people do not like to be told that they are about to expire, particularly when time proves that the medicine man must have miscalculated. Such was the case with our Eskimos. Those of a more optimistic frame of mind took exception to a man who could inspire the sick with so much terror; accordingly, a plot was set for the riddance of his evil spirit.

Their "plot" was nothing more than a scurvy trick; they reasoned between them that it was justice. One day, Kyo was asked to accompany a hunting party, little suspecting that he was to be the object of the hunt. About five miles from camp he was struck from behind, and fell, hardly realising what had taken place. Then, lest his spirit should escape, he was buried and weighted with stones.

An Eskimo execution is always done after this manner. Lacking government and laws of any kind, even subsisting without a leader, the avenger is at liberty to decide the fate of the criminal. There is this peculiarity; the execution is never done in open fight; always by stealth. Yet Eskimos are far from cowardly—as proved when attacking the polar bear and musk-ox.

The life of an Eskimo rarely exceeds sixty years. It is amazing that it should persevere to this extent, despite the malignity of Nature.

There is a particularly touching case of a native who has been dependent upon his fellow men for the past fifteen years. When we first saw him he seemed

troubled with a slight touch of rheumatism—a malady not unfrequent in those parts. But year after year his condition grew worse, until to-day he lives practically ossified—all but his head. Through all these years he has received consideration; the devotion shown by his people—is it not wonderful? Nothing is thought about the matter in that community. Neither age nor infirmity go neglected; they are cared for without thought of reward.

The main causes of death are lung and bronchial troubles.

There exists among these people a form of hysteria known as *piblocto* (the same name as given to the well-known madness among their dogs), with which women, more frequently than men, are afflicted. During these spells, the maniac removes all clothing and prances about like a broncho. In 1898 while the *Windward* was in winter quarters off Cape D' Urville, a married woman was taken with one of these fits in the middle of night. In a state of perfect nudity she walked the deck of the ship; then, seeking still greater freedom, jumped the rail, on to the frozen snow and ice. It was some time before we missed her, and when she was finally discovered, it was at a distance of half-a-mile, where she was still pawing, and shouting to the best of her abilities. She was captured and brought back to the ship; and then there commenced a wonderful performance of mimicry in which every conceivable cry of local bird and mammal was reproduced in the throat of Inaloo. This same woman at other times attempts to walk the ceiling of her igloo; needless to say she has never succeeded.

A case of piblocto lasts from five minutes to half-an-hour or more. When it occurs under cover of a hut, no apparent concern is felt by other inmates, nor is any attention paid to the antics of the mad one. It is only when an attempt is made to run abroad, that the cords of restraint are felt.

Of alcohol, and other artificial drinks, there is none. No excess of any kind—unless we can call "excess" the hearty eating which is necessary to the Eskimos' existence. On the other hand, hunger is no particular hardship to these people. Their bodies are well-rounded, seemingly to answer the purpose of the camel's hump.

Generosity and hospitality are characteristic. There is no such thing up North as individual poverty and riches. It is an unwritten law that when one man has been particularly fortunate in a hunting expedition, his tribe will share the net results. It is this feeling of good fellowship which preserves the race. In other matters, each family is practically independent. Each man for himself, a Jack-of-all-trades.

As a rule no Eskimo family lives in one place more than two consecutive years. The reasons are several; perhaps the most important being a natural feeling of unrest. The Eskimo feels more keenly than any other people that it is not possession, but acquisition which gives men pleasure and sense of power. Then, too, there is the desire for change of food. A prolonged diet of bear flesh has quite as much irksome sameness for him, as hard tack has for the sailor. Scarcity of game is another vital consideration. After a siege of several months' duration, the food supply is likely to

become exhausted and then nothing is left for the man to do, but shift.

The seal is the Eskimo's staple food. It is also his most valuable resource in that it supplies him with material for clothing, boots, tents, harpoon lines, heat, light, and food for his dogs. Winter is calculated upon as nicely in the northern parts, as in any thrifty community. The Eskimo moderates his appetite during these months of animal hibernation, according to the supplies on hand—cuts the coat after the cloth, as it were.

One is grieved to note a state of reckless abandon in the matter of dirt. It is quite beyond the comprehension of these simple folk why washing should be considered necessary for the comfort of humans. When we were caught using a tooth-brush, this was too much. We must indeed be a filthy tribe! "If the mouth is unclean, what part of us is clean?" Was ever injured innocence expressed in more sober language?

In the very water in which a walrus feast is about to be prepared, may often be found the drippings of greasy garments hanging above: or perhaps excited by civilisation, the good woman of the place will take to washing her hands at this moment.

We despair of ever civilising these people, permanently. While we are in their midst, they seem to be progressing. But out of sight, out of mind—so far as civilisation (and hair-combing!) are concerned.

"From many children and little bread, good Lord deliver us." This would seem to be the Eskimo's prayer, for in no family will be found more than six children. Though not lacking in warmth of blood

they are not a prolific people. ' The females arrive at the age of puberty neither very early nor very late, but according to their own statements they rarely have children, even with every possible provocation, till at least three years later, and I am inclined to think the statement is substantially correct.

"As the males are considerably in excess there is a constant demand for wives, and girls frequently marry while still as flat-chested and as lank-hipped as a boy.

"As regards morals, these people do not stand high according to our scale. The wife is as much a piece of personal property, which may be sold, exchanged, loaned, or borrowed, as a sledge or a canoe. It must be said in their favour, however, that the children as well as aged and infirm members of the tribe are well taken care of, and that, for the former the parents evince the liveliest affection.

"There seems to be no ceremony for marriage (and there is none for birth). The matrimonial arrangement is frequently perfected by the parents while the parties are children.

"As the female is eligible for marriage much earlier than the male, a girl may be appropriated by a man whose wife has died, before her intended is old enough to marry. This arrangement may continue, or her intended may claim her when he is old enough. This is largely a matter of mutual agreement.

"Young couples frequently change partners several times in the first year or two, till both are suited, when the union is practically permanent, except for temporary periods during which an exchange may be effected with another man, or the wife loaned to a friend.

"Motherhood and the various female functions cause them hardly if any more inconvenience than is the case with animals.

"The causes of death among the men come largely under the terse Western expression, 'with their boots on.'

"A kayak capsizes, and the occupant is hurled into the icy water; a hunter harpoons a walrus or bearded seal from the ice, a bight of the line catches round arm or leg, and the big brute drags him under to his death; an iceberg capsizes as he is passing it; a rock or snow-slide from the steep shore cliffs crushes him; or a bear tears him mortally with a stroke of his paw: and so on. Occasionally, in the past, starvation has wiped out an entire village.

"On the death of a man or woman, the body, fully dressed, is laid straight upon its back on a skin or two, and some extra articles of clothing placed upon it. It is then covered with another skin, and the whole covered in with a low stone structure, to protect the body from dogs, foxes, and ravens. A lamp with some blubber is placed close to the grave; and if the deceased is a man, his sledge and kayak, with his weapons and implements, are placed close by, and his favourite dogs, harnessed and attached to the sledge are strangled to accompany him. If a woman, her cooking-utensils and the frame on which she has dried the family boots and mittens, are placed beside the grave. If she has a dog, it is strangled to accompany her; and if she has a baby in the hood, it too must die with her.

"If the death occurred in a tent, the poles are removed, allowing it to settle down over the site, and it

is never used again, but rots or is finally blown away. If the death occurred in an igloo, it is vacated and not used again for a long time.

"The relatives of the deceased must observe certain formalities in regard to clothing and food for a certain time; the name of the dead person is never spoken, and any other members of the tribe who have the same name must assume another until the arrival of an infant, to which the name can be applied, removes the ban.

"Of religion, properly speaking, they have none. The nearest approach to it is simply a collection of miscellaneous superstitions and beliefs in good and evil spirits. It may be said, in relation to this latter subject, that information in regard to it is extremely difficult to obtain, and probably, the bottom facts of the matter will be known only when some enthusiast is willing to devote five or six years of his time to living with them and doing as they do, becoming in fact, one of them.

"Their amusements are few. In summer there are tests of strength between the young men of the tribe, consisting of wrestling, pulling, lifting, and a rude kind of boxing. In winter the sole amusements are marital pleasures, and the songs and improvisations of the *angakoks*, or medicine men, of the tribe. In the choruses of these the entire assembled company join."

At these choruses which are sometimes all-night affairs, a sort of tambourine is used to keep time to the "music." It is made of membrane from the throat of a walrus, stretched across the antlers of a reindeer. Dancing is practised only among some of the southerly

Greenland folk. These people, without impediment of clothing are often charmingly graceful; and like negroes, are indefatigable.

I have often been asked: Of what use are Eskimos to the world? They are too far removed to be of value in commercial enterprises, and furthermore they lack ambition. They have no literature, nor, properly speaking, any art. They value life only as does a fox, or a bear, purely by instinct.

But, let us not forget that these people, trustworthy and hardy, will yet prove their value to mankind. With *their* help, the world shall discover the Pole.

CENSUS OF THE SMITH SOUND ESKIMOS *

SEPTEMBER, 1906

COMPILED BY ROSS G. MARVIN

Accomadingwah
Acrah
Acutah
Adareingwah
Adareingwah
Adareingwah
Adareteah
Adareteah
Adashungwah
Adicka
Adingnedu
Agootah
Ahcreah
Ahmahmie
Ahmungwah
Ahnenah
Ahnighite
Ahpedah
Ahpelah
Ahwaktungwah
Ahweagoodlu
Ahweah
Ahwegingwah
Ahweingohna
Akageah
Akatingwah
Akatingwah
Akpudashawhu
Akpudashawhu
Akpudie
Akpudingwah
Aleta
Alnadu
Alnaduah
Alnaghite
Alnalnaweah
Alnalnaweah
Alnanungwah
Alnawingwah
Alningwah
Amah
Anahwe
Anowka
Asayu
Ashuah
Atinganah
Atinganah
Atita
Atita
Awatingwah
Awitackshua
Cadahuh
Cahateah
Cahweahshua
Cahweingwah
Cahweingwah
Cahweingwah
Calwahsooh
Clayingwah
Clayouh
Clayouh
Congwah
Contigito
Conughito
Conughito
Cowluhtoo
Cowangwah
Egeah
Egingwah
Egingwah
Ekeah
Emenyah
Etokshawsui
Evalee
Evalee
Eykapingwah
Ewe
Idingwah

* Names of males in italic, females in roman.

Illyah
Ilquah
Ilquahwishah
Ilquyenah
Ilyatee
Ilyatingwah
Ilyatingwah
Inadleah
Inaloo
Ingyapadoo
Inughito'
Inughito
Inughito
Inutah
Inutah
Inuwahsu
Ienah
Ioshowty
Ircra
Isheata
Itookishoo
Itookishoo
Iyakpungwah
Kashadu
Kepehocshaw
Kepeingwah
Keshu
Keshu
Keshungwah
Kudeah
Kudla
Kudla
Kudlanah
Kudlooktoo
Kudlutinah
Kudlutinah
Kulitingwah
Kyangwah
Kyangwah
Kyangwah
Kyooh
Kyoohtah
Makshangwah
Maksingwah
Maksingwah
Mamonah
Mayshowna
Meetil
Meetil
Mehootiah
Mercrah
Merkrisha
Mickeyshoo
Mickgipsu
Moneyshaw
Mooney
Mooney
Mucktah
Mucktoo
Myooh
Nedickta
Nedingwah
Nehatalahow
Nelikateah
Nepsingwah
Netooh
Neuah
Neuahateah
Neuakina
Neuakingwah
Neuakingwah
Neucapingwah
Neuktah
Ongmalooktoo
Ongudablaho
Ongudloo
Ongudloogipsu
Ongwah
Oobluyah
Oobluyah
Oogwhi
Oohasingwah
Ootah
Ooyah
Ouatingwah
Ouheah
Ouweak
Oushakupsie
Oweah
Panikpah
Peowahtah
Poohtah
Puadloonah
Puadloonah
Puadloonah
Publa
Publa
Qouyoupee
Quoyoupee
Seadacuteah
Seakingwah
Segwah
Shakupsungwah
Shatooh
Siglu
Sihmeah
Silmah
Silmingwah
Sineungwah
Sipsu
Socrah

Sohningwah	Tookamingwah	*Un-named*
Songwah	Tookumah	Un-named
Taacheah	*Touchingwah*	Un-named
Taachingwag	*Tungwhi*	*Un*-named
Teddylingwah	*Un-named*	*Un*-named
Tongingwah	*Un-named*	*Un*-named

SUMMARY

119 *Males*, 85 Females, *3 Infants sex un-learned. Total 207

August 31, 1895, this tribe numbered 253—males 140, females 113

R.E.P.

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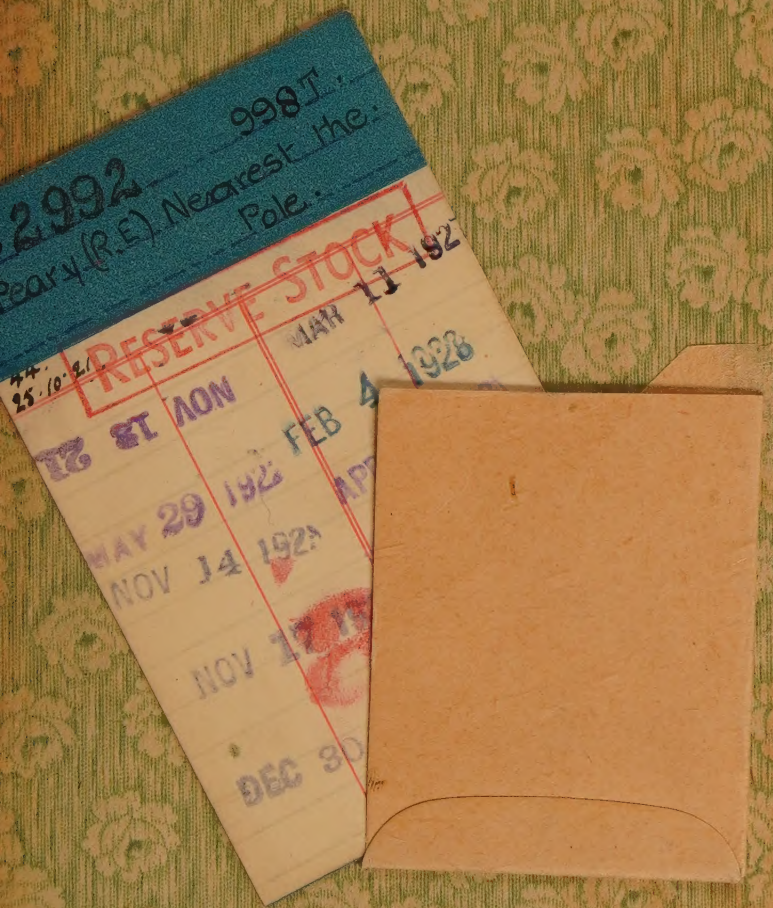

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